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ABSTRACT

The Multilevel Assessment Program tests for urban schools are conducted annually across Australia's Northern Territory in reading and mathematics. The program allows performance to be monitored at the system level for Years 5 and 7. Results show that, in terms of system performance on the link questions, there was no difference between 1992 and 1993 in reading everyday texts or in Year 5 reading comprehension, but the performance of Year 7 students on the link questions in the reading comprehension test was significantly lower in 1993. While girls scored better than boys on every reading subtest, there were few differences between boys and girls on mathematics tests. Non-Aboriginal students scored higher than their Aboriginal peers on all tests, but the gap in mathematics appeared to be declining. Appendixes contain: (1) a list of assessment committee members; (2) score distributions by subgroup; (3) average subtest scores by gender; (4) average subtest scores for Aboriginal and non-Aboriginal students; (5) average subtests scores by English as a second language students and others; (6) a glossary; and (7) sample test questions. (Contains 2 figures, 16 tables, and 32 graphs.) (SLD)

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RESULTS OF THE 1990 MULTILEVEL ASSESSMENT PROGRAM

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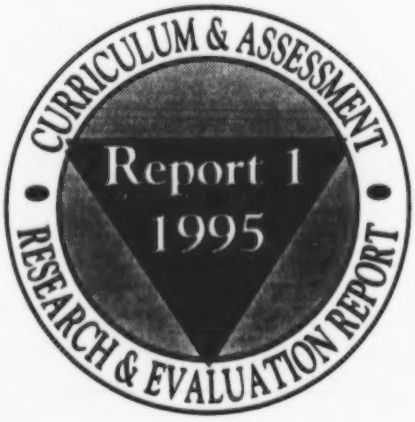
RESULTS OF THE 1993 MULTILEVEL ASSESSMENT PROGRAM in Urban Schools



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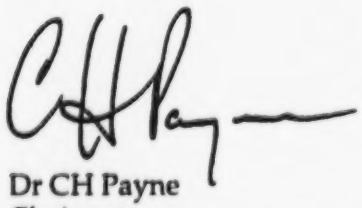
Foreword

This report describes the performance of Year 5 and 7 students in urban schools in the reading and mathematics tests for the Multilevel Assessment Program (MAP) in 1993. This program was formerly called the Primary Assessment Program (PAP). There were some new aspects to the tests. For the first time students were allowed to use calculators for some parts of the mathematics tests and they could attempt optional stages in the reading comprehension tests. Encouragingly high numbers of students attempted the optional stages of the reading comprehension tests. For the first time English as a second language (ESL) students were identified and their performance reported on.

Girls once again performed better than boys on all the reading tests whilst gender-based differences were marginal in mathematics. The achievement of Aboriginal students was again, on average, below that of non-Aboriginal students. Such performances were in line with national trends. It is encouraging to note that significant numbers of Aboriginal students obtained scores in excess of the non-Aboriginal averages in both reading and mathematics.

I would like to take this opportunity, on behalf of the Northern Territory Board of Studies, to thank all those involved in the MAP urban tests for 1993. Once again the broad representation of teachers and office-based staff involved in the development and administration phases of the tests has resulted in the production of an effective and high quality assessment program.



Dr CH Payne
Chairman
Northern Territory Board of Studies

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Executive Summary

The Multilevel Assessment Program (MAP) tests for urban schools are conducted annually across the Northern Territory in reading and mathematics (in 1994 the program was re-named the Multilevel Assessment Program (MAP)). The results show that, in terms of system performance on the link questions, there was no difference between 1992 and 1993 performances in the reading everyday texts (RET) or in Year 5 reading comprehension. However, the performance of Year 7 students on the link questions in the reading comprehension test was significantly lower in 1993.

Besides providing diagnostic information for teachers and schools, the program allows performance at the system level to be monitored. Year 5 students in urban schools are tested at Stage 5 of the Board Approved Curriculum in reading and mathematics and Year 7 students are tested at Stage 7. In 1993, for the first time there were optional reading comprehension passages, at Pre-Stage 5 and Stage 7 for the Year 5 students, and at Stage 5 and Beyond Stage 7 for Year 7. This enabled collection of data for a wider range of ability levels, hence giving more information about student performance at different stages.

On all of the compulsory sections of the tests the average score was well above 50%. The average for Stage 5 reading comprehension was 64%, and for the RET test it was 78%. In Year 7 the reading comprehension average was 62%, and the RET average was 79%. In mathematics the Year 5 average was 58%, and the Year 7 average was 65%. Year 5 and 7 students found number questions the most difficult and space questions the least difficult. It was interesting to see the difference in performance on a number of link questions now that calculators were allowed. For example, in the Year 5 test a question that involved addition and subtraction was answered correctly by 59% of students in 1993, but only 36% of students in 1992, similarly a question that involved calculating the mean of a set of five numbers was answered correctly by 29% of students in 1992 and 59% in 1993. It was possible that in 1992 students answered these questions incorrectly because of calculation errors, rather than lack of knowledge.

Girls scored higher than boys in every reading subtest. Based on previous years' data, this result was not inconsistent. In mathematics there was very little difference in performance between boys and girls in the number and space strands at Year 5 and Year 7. Boys performed slightly better on the measurement strand questions: the difference in averages was 1% in Year 5 and 3% in Year 7. The same trend was observed in earlier years.

At Year 5, 12% of students sitting the reading comprehension test identified themselves as Aboriginal compared to only 5% of students sitting the reading everyday text test. At Year 7, 8% of students sitting the reading comprehension test and 5% of students sitting the reading everyday text test identified themselves as Aboriginal. On all tests the average for non-Aboriginal students was higher than for their Aboriginal peers although significant numbers of Aboriginal students registered scores in excess of the average score for non-Aboriginal students. In the

reading comprehension tests, the difference in average test scores of Aboriginal and non-Aboriginal students was 20% at Year 5 and 17% at Year 7. The differences in averages scores for the reading everyday texts were 18% at Year 5 and 14% at Year 7.

In the Year 5 mathematics test the average scores of Aboriginal students were 20% below those of non-Aboriginal students. At Year 7 this gap was 19%. This is a reduction from last year's test results when the difference in averages was 27%. Twelve per cent of students sitting the maths tests at Year 5 and Year 7 identified themselves as Aboriginal.

This year the results of English as a Second Language (ESL) and non-ESL students have been compared. In all tests the averages of ESL students were lower than those of non-ESL students. More than half of the Year 5 and Year 7 ESL students attempted the optional extension passages of the reading comprehension tests, and it was in these passages that the difference between ESL and non-ESL students was the lowest. The differences in averages on the reading comprehension tests were 16% at Year 5 and 12% at Year 7. For the reading everyday texts the differences were 11% at Year 5 and 10% at Year 7. In mathematics the difference in averages was 8% for Year 5 and 13% for Year 7 students.

Item response theory (IRT) has been used to contribute to the analysis and reporting of mathematics results. The discussion on the level of question difficulty was based on this analysis.

Introduction

Aims of the Multilevel Assessment Program (MAP)

The MAP's aims are to monitor annual system-wide performance in reading and mathematics and to report student, school and system results. 'System', as used in this report, refers to all urban schools and all students in Years 5 and 7 participating in the testing program throughout the Northern Territory. The aims may be summarised as follows:

- at the classroom level
  - to provide test results of individual students in reading and mathematics
  - to give teachers information that may help to improve their teaching programs
  - to supply teachers and parents with a better idea of what stage each student has achieved by providing tests which are multilevel
- at the school level
  - to provide test data that would enable schools to compare both individual and school results with the aggregated system results
  - to give schools data on which they can base program improvements
  - to provide schools, over a period of time, with a bank of high quality and appropriate assessment materials
- at the system level
  - to report on the performance of Territory students in mathematics and reading
  - to monitor trends in student performance over a period
  - to identify areas of strength and weakness in mathematics and reading
  - to assist in curriculum development.

Background to the Tests

Each year MAP tests are conducted by the Northern Territory Department of Education's Curriculum and Assessment Division under the auspices of the Northern Territory Board of Studies. This system-wide testing program for Year 5 and 7 students in urban schools commenced in 1983. A separate testing program for non-urban (Aboriginal) schools was commenced in 1986. The non-urban tests now contain some questions taken from the urban tests.

Policy matters are now the province of the Common Assessment Committee (CAC), which monitors this constantly evolving program and advises the NT Board of Studies in assessment. The CAC 's membership is drawn from across the educational

spectrum and this committee responds to suggestions from teachers, principals, school councils, administrators and other interested parties. In large part, recognition given to the MAP and its acceptance is due to its demonstrated willingness to make changes in response to the needs of its client groups and the input from teachers at forums such as test construction panels, the CAC, and the Multilevel Assessment Committee.

MAP Assessment

The four components of the MAP are:

- mathematics tests
- reading comprehension tests
- the reading everyday texts (RET) tests
- moderation of the assessment of students' writing in a range of genres.

All eligible Year 5 and 7 students are tested annually in reading and mathematics. Schools have two weeks to complete the tests. Time allowed to complete each test is recommended rather than prescribed. The moderation process is an ongoing exercise.

Test Construction

Test questions are pitched as closely as possible to the appropriate levels of difficulty by having them written by panels of school- and office-based teachers. Through careful matching of instructional objectives with test objectives, instructional validity is maintained. More questions than required are written. Through extensive trialling and review, a final set of questions is assembled. All tests comprise multiple-choice questions where students are given four options and open-ended questions where the students are asked to supply a short answer.

Trialling of Tests

The tests are trialled extensively in a range of primary and high schools prior to their being finalised. Each item is tested for suitability by a series of statistical tests. Immediate feedback from students and teachers is also used and is of great importance. This information is presented to a test review panel and questions are then modified or eliminated, where necessary.

Link Questions

A statistical analysis is carried out to compare system performance from one year to the next. This is achieved by the use of 'link' questions, i.e. common questions used over succeeding years. However, as only a small number of questions is used as links, care should be taken in interpreting changes in performance from one year to the next, although these questions do provide a good guide.

Reporting Results

All public reporting is of aggregated system results only. All individual and school results are confidential. Each school receives performance data for each of the tests done by its students. School councils receive summary statistics of their school's results.

Schools receive result booklets containing individual, school and system results. These are set out so that teachers can easily read and interpret the graphs and tables of statistics, thus enhancing the diagnostic value of the testing program. A section of this booklet deals with how to read and interpret the statistics.

Graphs

Graphs provided to each school show the average subtest scores for that school compared to the system averages for the subtests. Each test is made up of a number of subtests. In mathematics there are three subtests, which are the number, space and measurement strands. In the reading tests, each text and its accompanying questions is regarded as a subtest.

Tables

The result booklets contain a series of tables. There are two types of tables included in School Report 1 and School Report 2. In School Report 1, the tables for mathematics and reading show, for each question, the school's performance compared to the system. Included in the table is a concise description of the task required by each question.

School Report 2 gives each student's results, expressed as number and percentage correct for all subtests and for whole tests. Self-identified Aboriginal students are indicated with an asterisk.

Test Reliability

Estimates of test reliability were derived using the Kuder-Richardson Formula 20 (KR 20) calculation and appear with the analyses of system results for each test.

All the tests yielded high reliability estimates which means that one could expect students' scores to be consistent from one measurement to the next in each of the areas in which testing was conducted. This has been achieved through carefully assembling and trialling all questions.

Mathematics Tests

Year 5 and Year 7 students sat a sixty-question mathematics test designed to test their understanding of aspects of the NT Mathematics Curriculum. Each test comprised two thirty-question sections. Students were permitted to use calculators for the first section of each test, where questions were set specifically to test

calculator skills. This was the first time that students were allowed to use calculators.

Predetermined test specifications ensured a range of number, space and measurement questions commensurate with their representation in the curriculum. Questions were also selected to represent a range of difficulty. In relation to skills, questions were designed to test the recall, computation, understanding and application mathematical concepts, with an emphasis on recall and understanding. There was a number of embedded link questions designed to provide a basis for comparing the 1992 and 1993 system results.

Reading Tests

Two reading tests were set for Year 5 and 7 students, namely the reading comprehension and reading everyday texts (RET) tests. The RET stimulus material is presented in the format of a newspaper and includes material students would be likely to find in their everyday environment such as cinema guides, instructions and excerpts from a telephone directory.

In 1993, the multilevel structure, which already existed in the non-urban tests, was adopted for the reading comprehension tests. The multilevel tests spanned Pre-stage 5 to Post-stage 7. Such an approach allowed students to be assessed at a level more commensurate with their ability. Students were thus able to show more precisely what they were capable of, which in turn generated additional school and system information.

Stage 5 and 7 tests remained compulsory but this will not be so in 1994, when teachers will be able to nominate at which stage individual students start a test. In 1994 the reading comprehension and RET tests will be presented as one test with two strands, these being an RET (factual) strand and a literary strand.

Writing Moderation

The first systemwide writing moderation exercise occurred this year. One of the purposes of the exercise was to collect information about students' attainments in the report writing genre. Representatives from nine randomly selected urban schools attended the two-day meeting.

Teachers were asked to plan and teach a unit of work, focusing on a subject area such as Science or Social Education, and to include specific teaching regarding the structure and language features of report texts. The writing occurred during Term 3 to allow for a valid account of attainment levels of Year 5 and 7 students at a given time. In 1994, a random sample of ten urban schools, other than those participating in 1993, will be selected for the exercise. A similar exercise, on a more informal basis, is planned for non-urban schools on a voluntary basis, in 1994. This is, in part, a pilot to future formal systemwide writing moderation exercises non-urban schools.

Year 5 Tests

Reading Comprehension Test Results

Table 1 **Overall Statistics for Year 5 Students Sitting the Reading Comprehension Test**

Stage	Pre-5 (Optional)	5 (Compulsory)	7 (Optional)
Number of Questions	32	40	13
Average Score	80%	64%	37%
Number of Students	384	1977	1084

The table above shows the average score for each part of the Year 5 reading comprehension test, the number of questions in the different subtests, and the number of students who attempted each subtest. The average score on the compulsory part of the test for Year 5 students was 64%. Average score is calculated by summing individual scores then dividing this figure by the number of students.

Three female and one male students achieved full marks in the compulsory section of this test.

Table 2 **Statistics for the Compulsory Stage 5 Section of the Reading Comprehension Test**

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
1977	40	25.7/64%	7.8	0.89

The table above indicates that the average was well above half the questions correct, although the standard deviation indicates that individual scores varied by a reasonable amount. Standard deviation quantifies how much scores varied from the average score. It is a measure of the spread of scores over the continuum of possible scores.

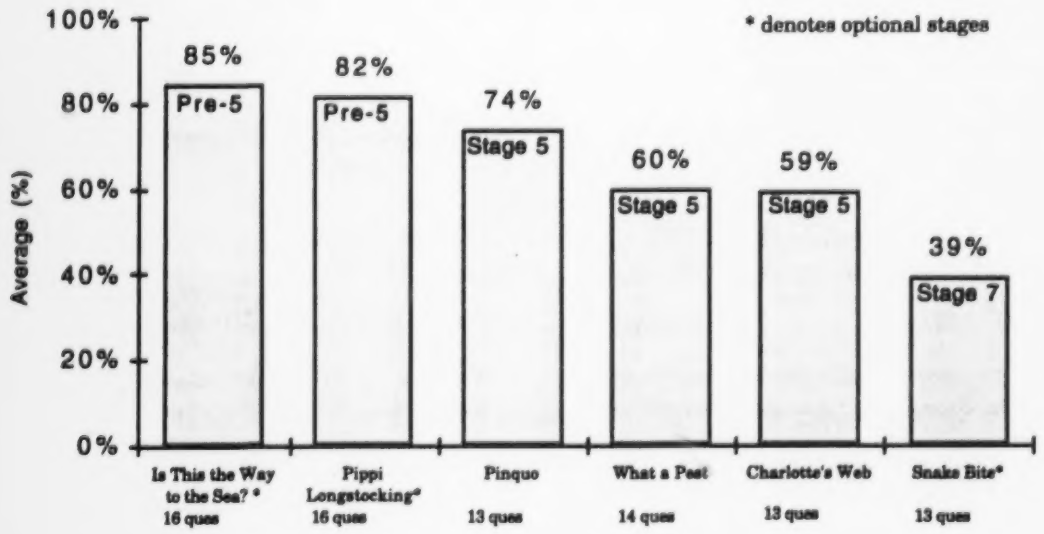
This test has the lowest reliability estimate of all the 1993 tests, but an estimate of 0.89 still indicates a fairly high level of reliability. Reliability refers to the measure of consistency that a test has.

Fifty-five per cent of students who did the compulsory section went on to do the optional Stage 7 subtest with 19% of students sitting the optional Pre-Stage 5 subtest. No information was available regarding the criteria used by teachers in selecting which students did optional stages so some caution should be exercised when looking at optional stage results.

Table 3 Passages in the Urban Year 5 Reading Comprehension Test

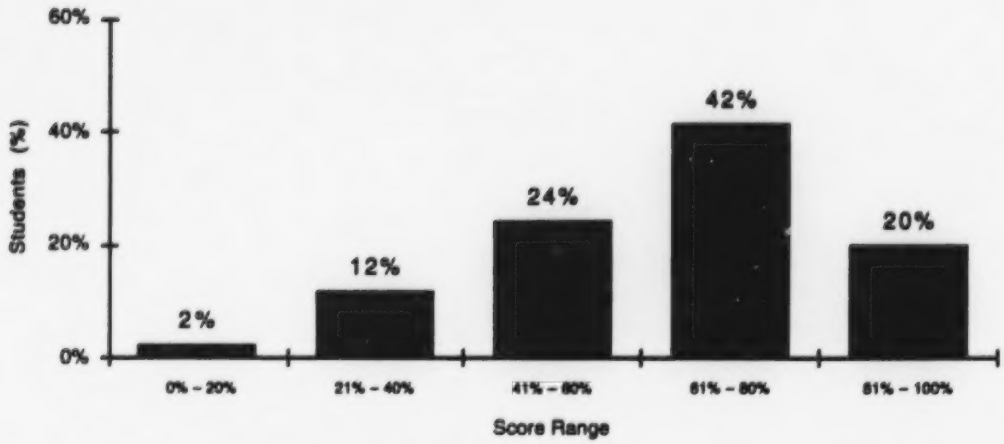
Subtest/Title of Passage	Description
Is This the Way to the Sea? (Pre-5)	Simple narrative
Pippi Longstocking (Pre-5)	Extract from a novel involving a description of the main character
Pinquo (Stage 5)	Extract from a novel involving a description of the main character
What a Pest (Stage 5)	Extract from a factual test
Charlotte's Web (Stage 5)	Extract from a novel
Snake Bite (Stage 7)	Event from an autobiography

Graph 1 Average Subtest Scores for the Year 5 Reading Comprehension Test



Average scores did decline with the higher stages although, as mentioned previously, there was no information available regarding criteria used by teachers to determine which, if any, optional stage their students did.

Graph 2 Distribution of Scores for the Year 5 Reading Comprehension Test



Although not to the same degree as last year's results, scores tended toward the higher end of the continuum, with sixty-two per cent of students achieving a score in excess of 61%, the largest group scoring in the 61%–80% range. The score distribution indicates that most students found the test to be relatively easy.

Students were asked to indicate on the cover of each test paper if they were Aboriginal. Twelve per cent of students sitting the MAP tests identified themselves as Aboriginal. Non-Aboriginal students performed better on this test than their Aboriginal counterparts. The average score for the compulsory subtest was 47% for Aboriginal students and 67% for non-Aboriginal students. Care should be taken when looking at such differences purely in terms of average scores. In this test, 22% of Aboriginal students achieved a score above the average score for non-Aboriginal students. The corresponding figure in 1992 was 32%. Twenty-nine per cent of Aboriginal students scored in excess of 61%.

For the compulsory Stage 5 subtest, the performance of girls (67%) exceeded that of boys (62%). This difference was similar to last year's.

Teachers were asked to indicate if a student was an ESL student on the front cover of each test paper. Eight per cent of students who sat the compulsory Stage 5 test were ESL students. The average for the ESL students was 49% and the average for non-ESL students was 65%. The proportion of ESL students who did the Pre-5 test was higher (11%), and the average score was 55% compared to an average of 83% for the non-ESL students. Fifty-one per cent of ESL students in Year 5 attempted the optional Stage 7 test. The average of these students was 26%, compared to 38% for the non-ESL students.

The average score of 64% for this tear's test was lower than in 1992 when it was 77%. A t-test analysis revealed that the difference between the results in 1992 and 1993 based on the link questions was statistically not significant.

A significance level of $p<.05$ is used with all t-tests contained in this report.

Reading Everyday Texts Test Results

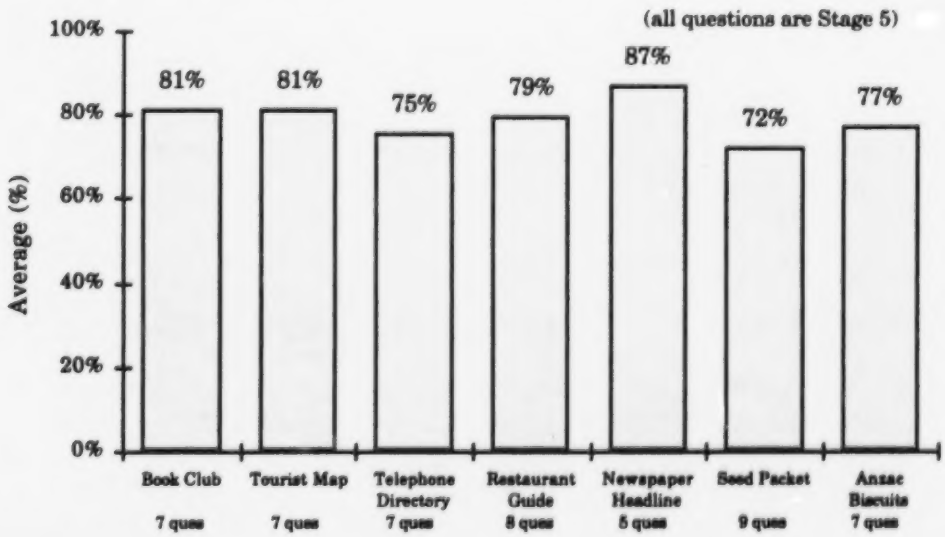
Table 4 Overall Statistics for the Year 5 RET Test

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
1964	50	39.2/78%	10.11	0.94

A similar number of students, i.e. 1961, did this test in 1992. The results were also fairly similar in 1992, with an average of 38 and a standard deviation of 9.8. The high standard deviation indicates that there was considerable variation in individual scores. This test, and the Stage 7 mathematics test, have the equal highest reliability estimate of the 1993 tests.

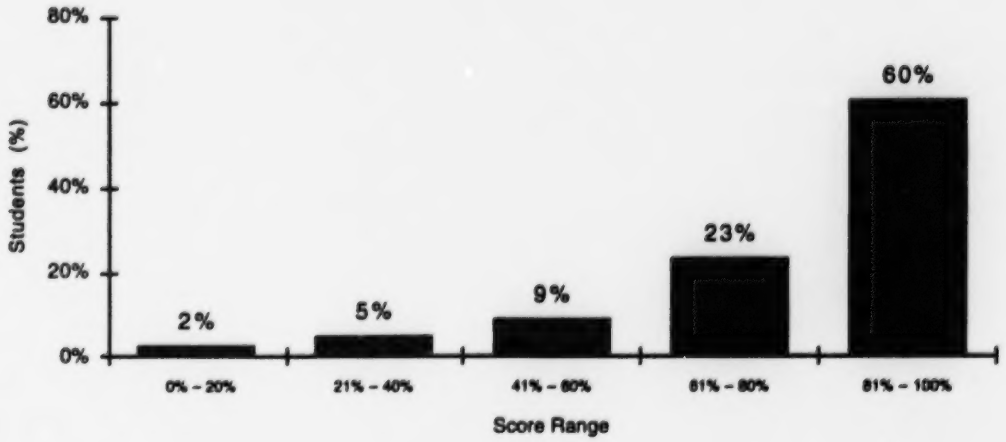
Twenty-eight females and twenty-one males achieved full marks.

Graph 3 Average Subtest Scores for the Year 5 RET Test



The average scores for the subtests displayed above indicate that most students found the Year 5 RET test to be relatively easy.

Graph 4 Distribution of Scores for the Year 5 RET Test



The fact that 60% of students scored in the 81%–100% range suggests that most students had little difficulty with this test, as was the case in 1992.

Aboriginal students who had an average of 63% on the RET did less well than non-Aboriginal students who averaged 81%. The difference of 18% was similar to that obtained last year. The largest differences were for the procedural texts *Seed Packet* and *Anzac Biscuits* at 25% and 23% respectively.

As in the preceding year, greater numbers of non-Aboriginal than Aboriginal students were in the higher score ranges, although 58% of Aboriginal students scored 61% or better. Thirty per cent of Aboriginal students achieved an average score in excess of the average score of non-Aboriginal students.

As in preceding years, female students had higher average scores than boys on all subtests. There were some variations with the smallest difference (3%) being with *Tourist Map* and the largest differences (9%) with the procedural texts *Seed Packet* and *Anzac Biscuits*. Females, on average, outperformed males by 6% as opposed to 4% in 1992.

The average for ESL students was 68% compared to 79% for non-ESL students. The smallest difference on subtests was 6% for *Newspaper Headline* and the largest differences were for *Seed Packet* (13%) and *Anzac Biscuits* (14%). This should be considered along with the information that the *Newspaper Headline* subtest was easiest overall with an average of 87%, and the *Seed Packet* subtest would appear to be the hardest overall with an average of 72%.

There was little difference in the 1992 and 1993 average scores of 76% and 78% respectively. A t-test analysis revealed that the difference between the results in 1992 and 1993 based on the link questions was statistically not significant.

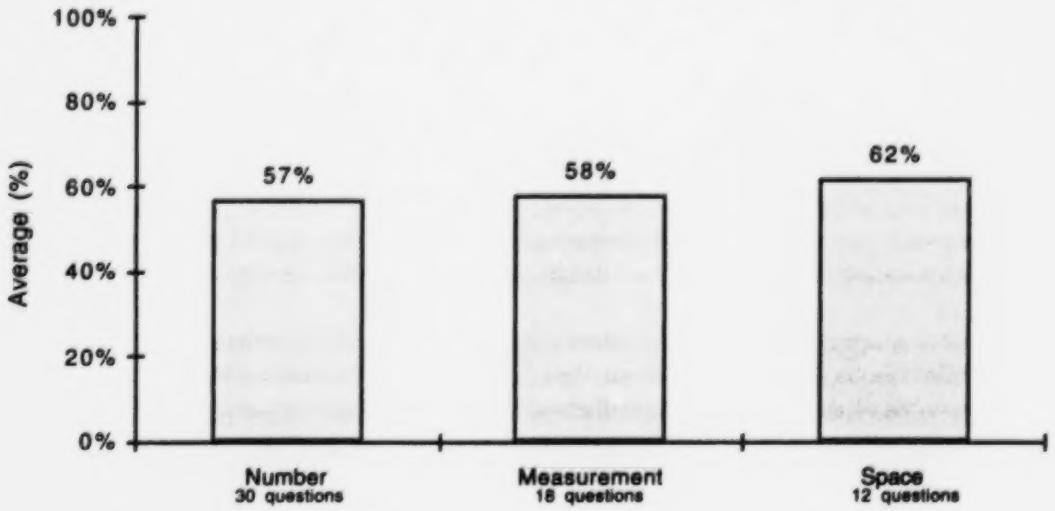
Mathematics Test Results

Table 5 Overall Statistics for the Year 5 Mathematics Test

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
2003	60	34.8/58%	12.17	0.93

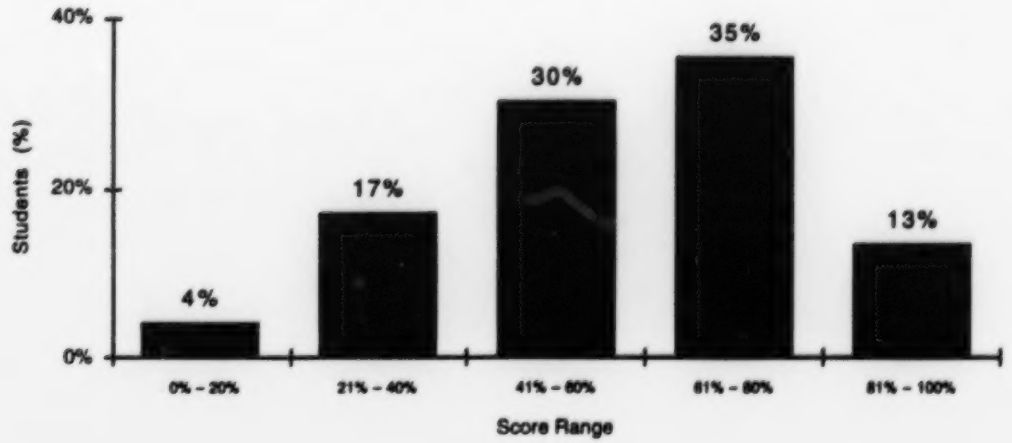
The size of the standard deviation relative to the average score indicates that there was more variation in scores in this test than in any of the other tests described in this report. This means that there were relatively high numbers of students spread below and above the average of the score range continuum (Graph 6). There were no optional stages in this year's mathematics test. Two students, both male, achieved the maximum possible score of sixty.

Graph 5 Average Subtest Scores for the Year 5 Mathematics Test



In 1992 students found questions from the space strand easiest, followed by measurement, then number. Students once again found space questions to be the easiest but not by such a big margin as in 1992. Such fluctuations over successive years can be caused by the inclusion of some questions that prove to be very easy or very difficult, although performance on link questions indicated a statistically significant improvement in performance over 1992, when calculators were not used.

Graph 6 Distribution of Scores for the Year 5 Mathematics Test



The concentration of scores toward the high end of the score range indicates that more students were in the higher rather than lower score ranges.

On all strands, the average scores of non-Aboriginal students exceeded those of Aboriginal students by around twenty per cent. Seventeen per cent of Aboriginal students achieved an average score in excess of the non-Aboriginal students' average score. This easily represented the lowest proportion of Aboriginal students scoring above the non-Aboriginal average in any of the six MAP reading and mathematics tests.

At the strand (subtest) level, there was very little difference in the performance of girls and boys. In last year's test, boys performed, on average, five per cent better than girls on the measurement strand with little or no difference in the other strands. For this year it would appear that girls have largely closed the gap where, for the measurement strand, the difference was in favour of boys by one per cent.

The average score for ESL students was 50% compared with 58% for non-ESL students. The difference between non-ESL and ESL students did not vary greatly over different strands. The non-ESL students scored on average 8% better in number, 9% better in measurement and 7% better in space.

The average score for this year's test (58%) exceeded that of last year (55%). Analysis of link questions in the Year 5 mathematics test using a t-test showed that there was a statistically significant improvement in performance.

Graph 7 IRT Analysis of the Year 5 Mathematics Test

Scale		Number	Measurement	Space
90				
	Harder			
82				
	XX			
	X			
75	XX			
	XX			
	XXX			
	XXXX			
	XXXX			
67	XXXXXX	N60		
	XXXXXXX			
	XXXXXXXXXXXX		M29	
	XXXXXX	N28		
	XXXXXXXXXXXXXXXXXXXX	N55	M26 M58	S54
	XXXXXXXX	N41		
59	XXXXXXXXXXXXXXXXXXX		M22 M24	S56
	XXXXXXXXXXXXXXXXX	N46	M51	S27
	XXXXXXXXXXXXXX	N48 N53		
	XXXXXXXXXXXXXX	N17 N50	M18	S25
	XXXXXXXXXXXXXXXX	N9 N11 N14 N40 N52		S16
	XXXXXXXXXXXXXXX	N30		S49
	XXXXXXXXXXXXXXX	N44	M43 M45 M47	
50	XXXXXXXXXXX	N13 N23 N57		
	XXXXXX	N3	M12 M59	
	XXXXXXXXXXX	N7 N38	M39	S42
	XXXXXXXXXX			
	XXXXXXXX	N19 N21 N33		
	XXXXXXXX	N5 N8		
42	XXXXXXXX			S20
	XXXX	N2 N6	M34	S15
	XXXXXX		M32 M36	S35
	XXX		M4	S37
	XX			
	XXXX	N1		S10
34	X		M31	
	X			
	X			
	X			
27				
	Easier			
	X			
19				

Each X represents 7 students Number of questions=60 Average (on arbitrary scale used)=54.38

22

Analysis by Strand of the Year 5 Mathematics Questions

Graph 7 represents the hierarchy of question difficulty, and student performance on the same continuum, using Item Response Theory (IRT). The use of IRT is now a common method of analysing and reporting performance on assessment tasks in most Australian States. It should be noted that the term item as used in this report is freely interchangeable with the term question, and hence this section looks at individual questions. Elsewhere in the report summary, or overall, statistics are discussed.

The purpose of this section is to foreshadow the introduction of IRT in analysis of MAP test results and to use IRT to examine questions in the Year 5 and Year 7 maths tests. On the continuum in Graph 7, the hierarchy of difficulty of the link questions was very similar to 1992. For the first time in 1993, Year 5 and 7 students could use calculators but only in the first half of each test (Questions 1–30).

Number

The hardest question this year was N60 (N refers to number, 60 is the question number in the whole test) which involved place value as did the third hardest, N55. In 1992 a very similar place value question was also the most difficult. Rounding proved to be a difficult activity (N41) as it was in the Year 7 paper. The second most difficult question (N28) required students to square two numbers. A group of essentially algorithmic questions (N46, N48 and N50) were relatively difficult. This may have been compounded by the absence of calculators.

At the easier end of the continuum students demonstrated that they had little difficulty with the order of operations question (N2). With the easiest question (N1), students showed a good understanding of the basic multiplication and division facts. Students had little difficulty in ordering numbers with two decimal places (N5). This was a link question and appeared in a similar position on the 1992 scale. Specific calculator questions were relatively easy (N8 and N19) as were the multiplication and addition algorithms (N38 and N33) where the respective product and sum exceeded 1000 and calculators were not used.

Question N23 was interesting in that this link question was the equal fifth hardest of thirty number strand questions in 1992, yet in 1993, when the use of calculators was allowed, it appeared lower down the scale of difficulty, becoming the equal sixteenth hardest of thirty. This question involved interpreting a word problem and then a simple addition of 4.5 m and 2.6 m then subtracting this sum from 10 m.

Measurement

A detailed knowledge of the concept of perimeter was required to answer the most difficult measurement question, a question that sought the perimeter of a shape that was essentially two joined rectangles (M29). This was a link question and was the most difficult 1992 measurement question. A very similar question was the most difficult Year 7 measurement question. Students had some difficulty in converting

grams to kilograms (M26) as did Year 7 students (see Graph 14). Using a calendar to project three weeks in advance was difficult (M58). Five of the seven most difficult questions related to time/date.

The placement of M31 as the easiest question demonstrated that students found the task of selecting the correct unit to describe the mass of a chicken relatively easy. Students were well able to measure using a ruler (M32 and M36). With the second easiest question (M4), students demonstrated a good knowledge of the concept of area but the more specific task of drawing a shape of a specified area (M45) proved more difficult.

Space

This year's most difficult space question (S54) was a link question involving reducing a simple two-dimensional shape to half its size. It was also a most difficult question in 1992, and in 1993 a Year 7 question involving a similar concept proved very difficult. Another difficult question (S27) involved doubling the size of a three-dimensional object (cube). Identifying and counting edges, faces and vertices of a prism (S56) was the second most difficult question this year; a similar question was the most difficult 1992 question. Students had difficulty tessellating a shape on a grid (S25) yet one of the easiest 1992 questions asked students to identify the tessellated shape from four. Marking coordinates on a grid (S16) was again difficult.

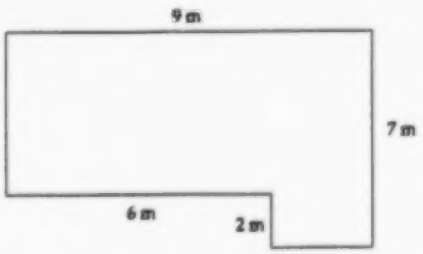
A symmetry question (S10) was the easiest which was also the case in 1992. Students again had little difficulty in following simple compass directions. Other questions that formed the easier group asked students to identify the two shapes that make up a hexagonal pyramid (S37), to select the two congruent shapes from six and to identify the shape of the face revealed by cutting a cube diagonally.

Figure 1 Sample Questions from the Year 5 Mathematics Test

1. Complete the number sentence.

60.

29. What is the length of the fence around this yard?



31.

Choose the correct mass of the chicken

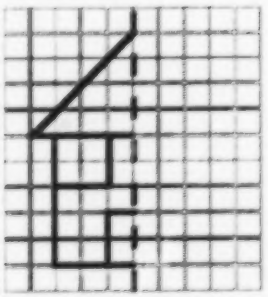
A. 1·4 m

B. 1·4 L

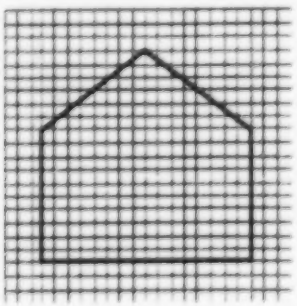
C. 1·4 g

D. 1·4 kg

10. Complete this drawing to make it symmetrical.



54. Draw the same shape half as long and half as wide as the shape shown on the grid.



Year 7 Tests

Reading Comprehension Test Results

Table 6 **Overall Statistics for Year 7 Students Sitting the Reading Comprehension Test**

Stage	Pre-7 (Optional)	7 (Compulsory)	Beyond-7 (Optional)
Number of Questions	27	40	19 marks (13 ques)
Average Score	73%	62%	42%
Number of Students	210	1831	1307

Only 11% of the Year 7 students attempted the Pre-7 subtest. The average for this subtest was 73%. As 71% of Year 7 students attempted the extension Beyond-7 subtest an average of 42% is not unexpected. In the Beyond-7 subtest the last question was worth 7 marks, which is why 19 marks came from 13 questions.

Table 7 **Statistics for the Compulsory Stage 7 Section of the Reading Comprehension Test**

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
1831	40	24.9/62%	8.28	0.90

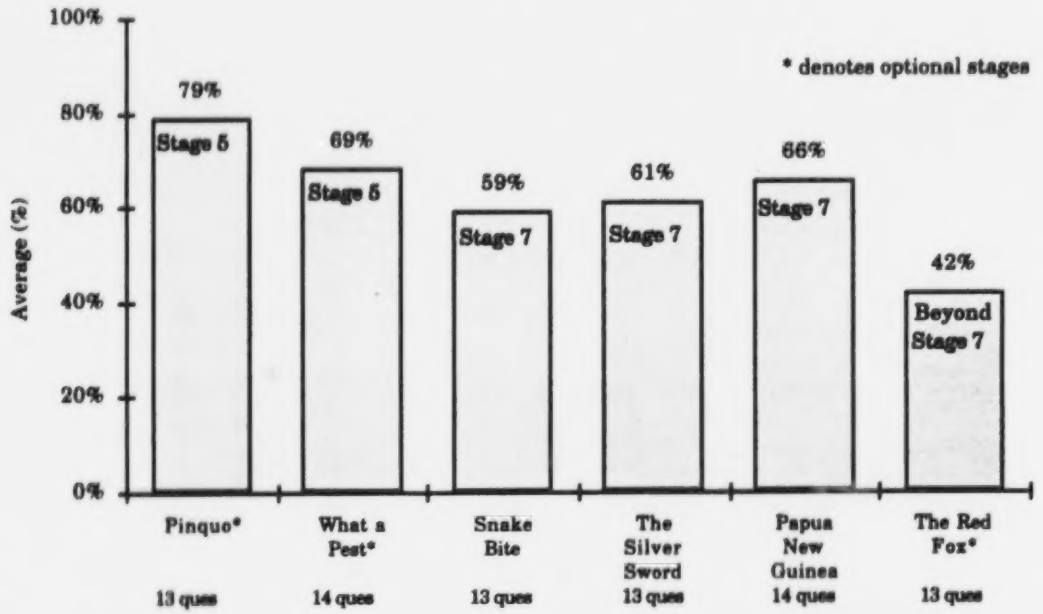
Once again the reasonably high standard deviation indicates some variation around the average score. An overall average of 62% shows that most students were able to achieve well on this test, although in 1992 the average on the Stage 7 reading comprehension test was 73%.

Six students achieved the maximum score of forty in the compulsory section of the test; five of these were female.

Table 8 Passages in the Urban Year 7 Reading Comprehension Test

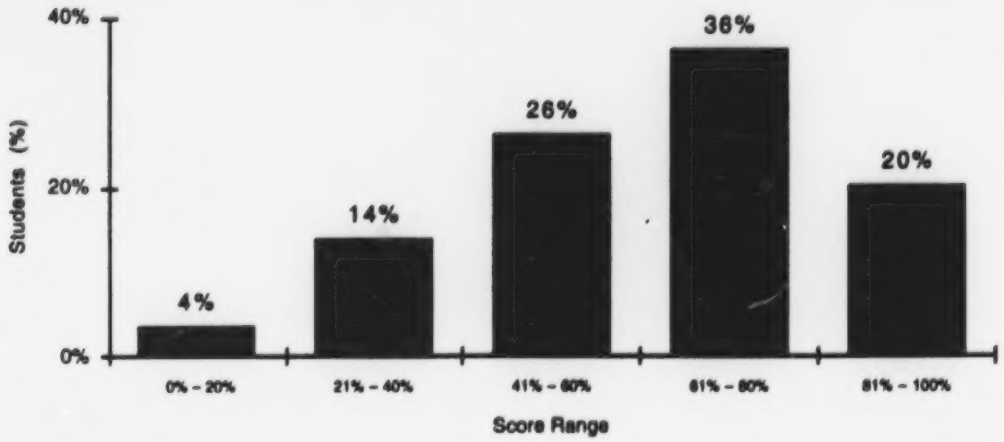
Subtest/Title of Passage	Description
Pinquo (Stage 5)	Extract from a novel involving a description of the main character
What a Pest (Stage 5)	Extract from a factual test
Snake Bite (Stage 7)	Event from an autobiography
The Silver Sword (7)	Event from a novel
Papua New Guinea (7)	Report
The Red Fox (Beyond Stage 7)	Extract from a novel involving description of an animal

Graph 8 Average Subtest Scores for the Year 7 Reading Comprehension Test



As the stage level increased, scores tended downwards, although care should be taken in drawing inferences from scores for various stages as there is no information available regarding selection criteria used by teachers to determine which, if any, optional stages their students attempted.

Graph 9 Distribution of Scores for the Year 7 Reading Comprehension Test



A sizeable difference in the average scores of Aboriginal students (47%) and non-Aboriginal students (64%) indicates that non-Aboriginal students performed to a much higher level. Last year's difference was 22%. Twenty-six per cent of Aboriginal students scored above the non-Aboriginal average score.

On average, girls achieved scores 4% higher than those of boys, which was similar to last year's difference.

The average of the ESL students on the compulsory Stage 7 component was 51%, compared to 63% for non-ESL students. Only 5% of the students were identified as ESL students, whereas 8% of the Year 5 cohort were ESL learners. The difference between the average of ESL and non-ESL students was greatest (15%) on the optional Stage 5 component, and least on the optional Beyond-7 subtest (8%). 72% of non-ESL Year 7 students attempted the Beyond-7 subtest, compared with fifty-one per cent of ESL students.

The average 1993 test score of 62% was lower than the 1992 score of 72%. Analysis of Year 7 reading comprehension link questions using a t-test indicated that the 1993 performance was significantly lower than in 1992.

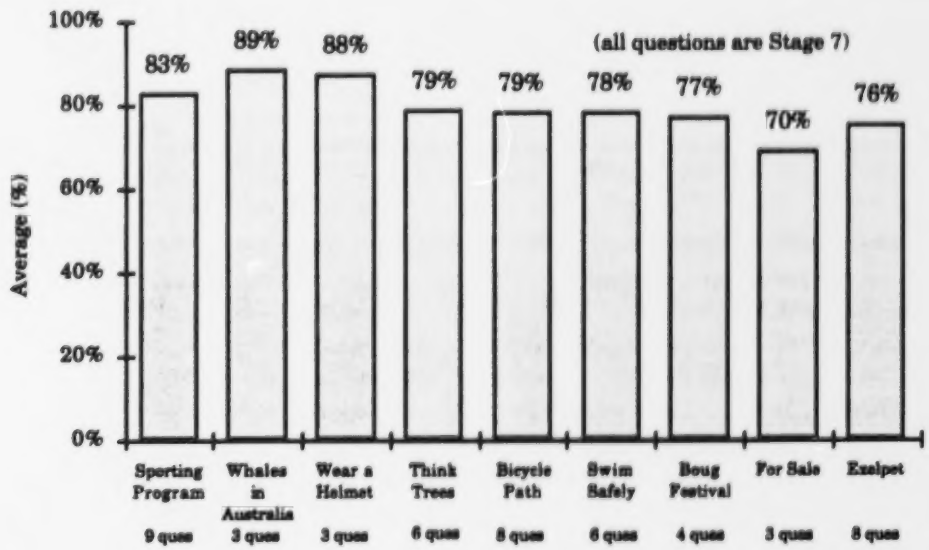
Reading Everyday Texts Test Results

Table 9 Overall Statistics for the Year 7 RET Test

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
1823	50	39.7/79%	8.08	0.90

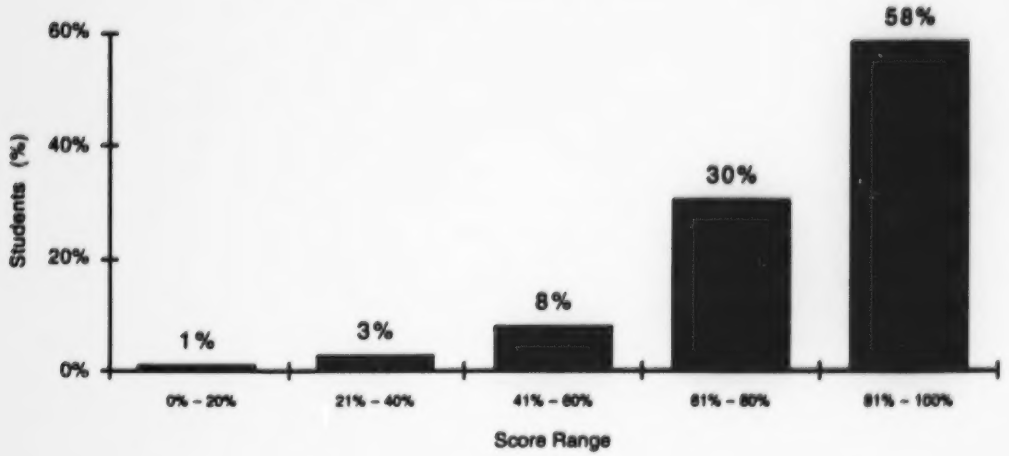
The size of the standard deviation relative to the average score indicates that this test has less variation in scores than any of the other tests described in this report. Most scores tended to be clustered around a relatively high average. See Graph 11. In this test 15 female and 11 male students achieved the maximum possible score of 50.

Graph 10 Average Subtest Scores for the Year 7 RET Test



There was some variation in average scores between the easiest and hardest subtests although students found this to be a relatively easy test.

Graph 11 Distribution of Scores for the Year 7 RET Test



In terms of average scores, 32% of Aboriginal students who sat this test achieved a score higher than the average score of non-Aboriginal students. This was the test where the average score for Aboriginal students' (67%) most closely approached that of non-Aboriginal students (81%).

As was the case in all of the other Year 5 and 7 reading tests, girls outperformed boys. With this test the difference was 5%.

In this test the average score for ESL students was 70% and for non-ESL students the average was 80%. The largest differences occurred in the subtests *Sporting Program* (13%) and *Exelpet* (14%), and the lowest difference was 7% for the subtest *Use Your Head Wear a Helmet*.

This year's average score of 84% for the Year 7 RET test was lower than in 1992 when it was 84%. A t-test analysis of link questions revealed that there was no statistically significant difference in performance between 1992 and 1993.

Mathematics Test Results

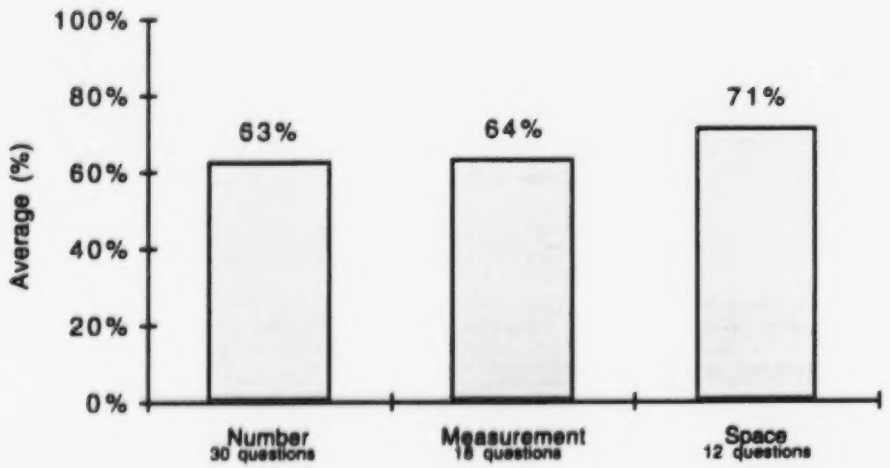
Table 10 Overall Statistics for the Year 7 Mathematics Test

Number of Students	Number of Questions	Average Score (Raw/Per Cent)	Standard Deviation	Reliability Estimate
1867	60	38.9/65%	12.44	0.94

In 1992, 1779 students did this test, with an average score of 33 out of 60. The high standard deviation of 12.44 in 1993 points to a large amount of variation in scores. This indicates a cohort with a range of mathematical ability. Along with the Year 5 RET test, the Year 7 maths test exhibited the highest reliability estimate of all the 1993 tests.

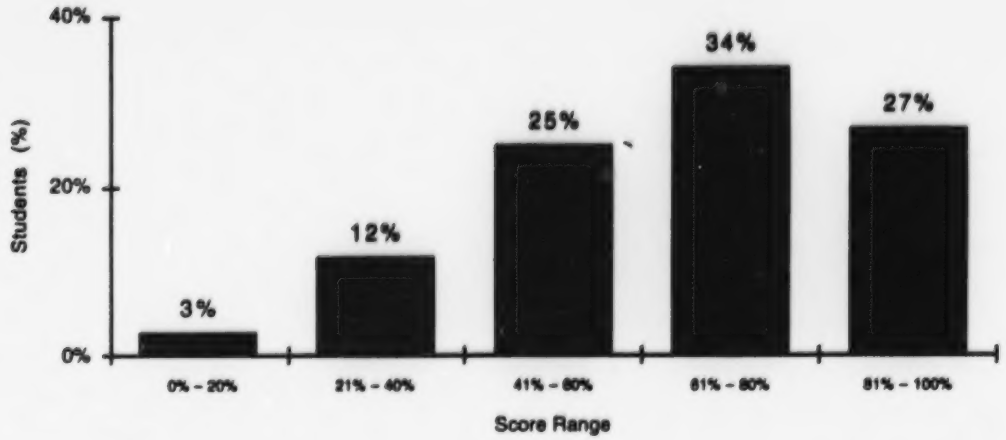
Five female and six male students achieved the maximum possible score of 60.

Graph 12 Average Subtest Scores for the Year 7 Mathematics Test



Average scores on each strand were higher than in 1992 when the average score for each strand was 55%. This apparent improvement in performance is confirmed by performance on link questions.

Graph 13 Distribution of Scores for the Year 7 Mathematics Test



In this year's test 23% of Aboriginal students scored above the non-Aboriginal average score. This is more than twice the proportion who did so last year. The Aboriginal students' average score of 48% was once again considerably lower than the non-Aboriginal students' average score of 67%.

The average score for ESL students was 53% and for non-ESL students 66%. The non-ESL students performed better on all strands, the difference in averages was 12% for number, 13% for measurement and 12% for space.

Overall there was little difference in the average performance of males and females, the biggest difference occurred in the measurement strand where males had a higher average score by three per cent.

The 1993 average score of 65% exceeded the 1992 average score of 55%. Analysis of Year 7 mathematics link questions using a t-test indicated that the improvement in 1993 over 1992 was of statistical significance.

Graph 14 IRT Analysis of the Year 7 Mathematics Test

Scale		Number	Measurement	Space
90				
	Harder			
	XXX			
82				
	XXXXX			
	XXXXXX			
	XXXXXXX			
72				
	XXXXXX			
	XXXXXXXXX			
	XXXXXXXXX			
	XXXXXXXXXX			
64	XXXXXXXXXXXXXXXXXX			S60
	XXXXXXXX			
	XXXXXXXXXXXXXXXXXX		M30	
	XXXXXXXXX	N24	M21	
	XXXXXXXXXXXXXXXXX	N46 N58	M26 M28	
	XXXXXXXXXXXXXXXXX	N18 N20 N25 N29	M56	S55
54	XXXXXXXXXXXXXXXXXXX	N16 N51 N54	M57	
	XXXXXXXXXXXXXXXX	N52		S48
	XXXXXXXXXXXXXX	N22 N27 N47	M53	S59
	XXXXXXXXXXXXX	N12 N49		
	XXXXXXXXXXXXXXX	N6 N9	M15	S11
46	XXXXXXXXXXXXX	N42	M45 M50	
	XXXXXXXXXXXX		M19	
	XXXXXXXXXX	N38 N44	M41 M43	
	XXXXXXXXXX	N36		S37
	XXXXXXXXX	N34		
	XXXXXXX	N5	M8	S13
36	XXXXXX	N32	M31	
	XXXX	N14	M35	S23
	XX	N3 N40		S17
	XXX		M2 M4	
	XX			
28	X	N1 N39		
	X			S33
	X			
	X			
				S10
	X			
18				
				S7
10				
	Easier			
0				

Each X represents 6 students Number of questions=60 Average (on arbitrary scale used)=53.97

Analysis by Strand of the Year 7 Mathematics Questions

As with the Year 5 link questions, the hierarchy of difficulty of link questions was very similar to 1992, with the exception of N27 which was the most difficult number strand link in 1992 and the fourth most difficult of seven in 1993, when calculators were allowed. This question involved determining the average score of five cricketing batsmen.

Number

The most difficult question involved percentage. Students had to calculate the difference between the sale price and regular price on a bicycle, and convert the discount to a percentage (N24). A similar percentage question was also found to be difficult in 1992. Rounding decimals (N46) was also difficult. Balancing a number sentence involving order of operations (N58) was difficult and this link question was among the most difficult in 1992. Also difficult were arranging a fraction, a decimal and a percentage in ascending order (N18), organising a list (or determining a pattern) to calculate the number of events (N20), subtracting then expressing a fraction in its simplest form (N25) and determining the probability of an event (N29).

Adding four whole numbers with decimals up to three places (N1) proved the easiest question. A similar question in 1992 proved a bit more difficult but this was without the aid of a calculator. Occupying the same rank on the continuum was a simple interpretation of a line graph (N39). Continuing patterns (N32 and N14), solving simple algorithms (N3) and completing a number sentence (N40) were easier questions.

Measurement

As with the Year 5 test, determining the perimeter of a composite shape (M30), was the hardest question. A link question (M21), the most difficult in 1992, was second hardest. This question involved determining the cost of sending a parcel (mass given in kilograms) by using a scale of charges expressed in grams. The two easiest questions involved mass: (M2) asked for a value to be read from a scale, and (M4) asked for the cost of two kilograms of a product whose price was expressed in grams. Calculators were allowed for both questions. Two questions that again involved perimeter (M26 and M28) shared the position of third most difficult. The two next most difficult questions (M56 and M57) asked students to order a series of masses expressed in kilograms, tonnes, grams and kilograms, and a series of distances expressed in metres and centimetres.

The easiest questions (M2 and M4) involved mass. Two time questions (M35 and M31) were the next easiest. In 1992, M31 (a link question) was also easy, as was a question that was very similar to M35. A perimeter question where students had to first convert metres to steps (M8) proved quite easy, demonstrating that most students could determine the perimeter of a more regular shape than the more irregular shapes in the difficult perimeter questions discussed earlier.

Space

The two most difficult questions (S60 and S55) were similar to the two hardest questions at Year 5 in that they involved manipulating the size of an object on a grid and identifying and counting a prism's faces, edges and vertices. A difficult 1992 link question was again difficult in the case of S48, where students were asked to identify the shape of the face exposed (triangle) when a slanted section of a cube is cut off. The difficulty of Question S59 suggested that students had problems with rotating objects. Curiously, a link question involving compass directed moves on a grid (S11) that was quite easy for students in 1992 was among the hardest questions in 1993.

Clearly the easiest space question was S7, which asked students to shade a jigsaw shape that fitted a space. As in 1992, a reflection question (S10) was easy, as was a scale question (S33). Matching names to shapes (S17) and determining how many half squares on a grid (S23) were also relatively easy questions. The three easiest space questions were also the three easiest questions in the whole test. The whole test's most difficult question was also a space question (S60).

Figure 2 Sample Questions from the Year 7 Mathematics Test

1. $97{\cdot}272 + 23{\cdot}401 + 6{\cdot}2 + 1{\cdot}25 =$

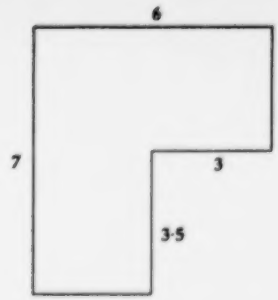
24. A $250·00 push bike was sold on special for $212·50. What was the percentage saved?

A. 15% B. 17%

C. 25% D. 30%

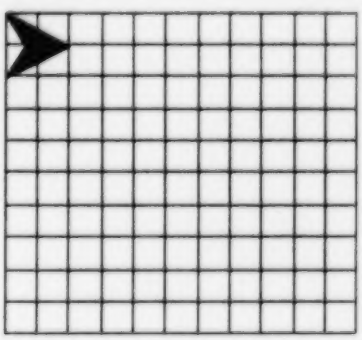
4. What would be the cost of 2 kilograms of potatoes?

30. **What is the perimeter of this shape?**



7. Shade the puzzle piece which fits in the hole.

60. Increase the size of this shape by 3 times.



Appendix I

Committees in 1993

NT Board of Studies – Primary Assessment Committee (1993)

Cliff Fowler	Chief Assessor–ERA (Chair)
Ron Abbott	Principal–Driver Primary School
Nick Cockshutt	Director–Curriculum
Pascale Zufferey	Senior Education Officer (Executive Officer)
Robyn Ferguson	Shepherdson College
Huang Zheng Sen	Principal Research Officer
Mick Myers	Principal–Moil Primary School
Chris Ross	Feppi
Judy Payne	Ludmilla Primary School
Fathma Mir	Parap Primary School

Test Construction Panels

Reading Everyday Texts Tests

Pascale Zufferey	Curriculum and Assessment (Convenor)
Dot Price	Curriculum and Assessment (Convenor)
Gerry McCue	Curriculum and Assessment
Anne Chambers	Tennant Creek Primary School
Elizabeth Stoddart	Tennant Creek Primary School
Heather Tubbenhauer	Bradshaw Primary School
Helen Metcalf	Alice Springs School of the Air
Joan Cossins	Braitling Primary School
Fluerette Sequira	Braitling Primary School
Danica Jeffrey	Alice Springs High School
Paul McLoughlin	Ross Park Primary School
Mike Stanford	Gillen Primary School
Jan Hart	Alice Springs School of the Air
Diane Clancy	St Philip's College

Reading Comprehension Tests

Dot Price	Curriculum and Assessment (Convenor)
Pascale Zufferey	Curriculum and Assessment (Convenor)
Chris Myall	Wagaman Primary School
Alison Walsh	Batchelor Area School
Bob Bowie	Millner Primary School
Julie Wills	Sanderson Primary School
Maurice Higgins	Wanguri Primary School
Tunde Vowles	Berry Springs Primary School
Mary Ryng	Moil Primary School
Linda Brodie	Parap Primary School
Robert Laird	Millner Primary School
Leslie Wilcox	Katherine School of the Air
Jenny Robinson	Parap Primary School
Jill Clarke	Parap Primary School
Moira Pianta	Wanguri Primary School

Year 5 Mathematics Test

Deborah Lee	Curriculum and Assessment (Convenor)
Laura Tolomei	Wagaman Primary School
Robert Oakley	Sanderson Primary School
Valesca Rogerson	Wanguri Primary School
Gladys Docking	Berry Springs Primary School
Sue Ray	Parap Primary School
Maggie Redwood	Stuart Park Primary School
Josie Robert	Moil Primary School

Year 7 Mathematics Test

Deborah Lee	Curriculum and Assessment (Convenor)
Bob Bowie	Millner Primary School
Robert Oakley	Sanderson Primary School
Jim Mullins	Darwin High School
Felicia Panoff	Darwin High School
Bev O'Connel	Berry Springs Primary School
Fathma Mir	Parap Primary School
Maurice Higgens	Wanguri Primary School
Troy Musty	McFarlane Primary School

Appendix II

Score Distribution by Subgroup

Table 11 **Score Distributions of Subgroups for the Year 5 Reading Comprehension Test**

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**2%**	**12%**	**24%**	**42%**	**20%**
Aboriginal	9%	32%	31%	24%	5%
Non-Aboriginal	1%	9%	23%	44%	22%
Male	3%	15%	26%	39%	17%
Female	2%	9%	23%	44%	23%
ESL	10%	27%	29%	29%	6%
Non-ESL	2%	10%	24%	43%	21%

Table 12 **Score Distributions of Subgroups for the Year 5 RET Test**

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**2%**	**5%**	**9%**	**23%**	**60%**
Aboriginal	8%	12%	21%	29%	29%
Non-Aboriginal	2%	4%	7%	22%	65%
Male	3%	7%	10%	26%	54%
Female	2%	3%	8%	21%	67%
ESL	7%	8%	20%	22%	42%
Non-ESL	2%	4%	8%	23%	62%

Table 13 Score Distributions of Subgroups for the Year 5 Mathematics Test

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**4%**	**17%**	**30%**	**35%**	**13%**
Aboriginal	16%	36%	30%	15%	2%
Non-Aboriginal	3%	14%	30%	38%	15%
Male	4%	17%	31%	34%	13%
Female	4%	17%	29%	36%	14%
ESL	9%	25%	29%	28%	9%
Non-ESL	4%	16%	30%	36%	14%

Table 14 Score Distributions of Subgroups for the Year 7 Reading Comprehension Test

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**4%**	**14%**	**26%**	**36%**	**20%**
Aboriginal	12%	26%	35%	21%	6%
Non-Aboriginal	2%	12%	25%	38%	22%
Male	5%	16%	28%	33%	19%
Female	3%	12%	25%	40%	22%
ESL	15%	19%	34%	18%	14%
Non-ESL	3%	14%	26%	37%	20%

Table 15 Score Distributions of Subgroups for the Year 7 RET Test

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**1%**	**3%**	**8%**	**30%**	**58%**
Aboriginal	5%	8%	19%	36%	32%
Non-Aboriginal	0%	2%	6%	29%	62%
Male	1%	4%	11%	32%	53%
Female	1%	2%	5%	29%	64%
ESL	4%	8%	14%	39%	35%
Non-ESL	1%	3%	8%	30%	59%

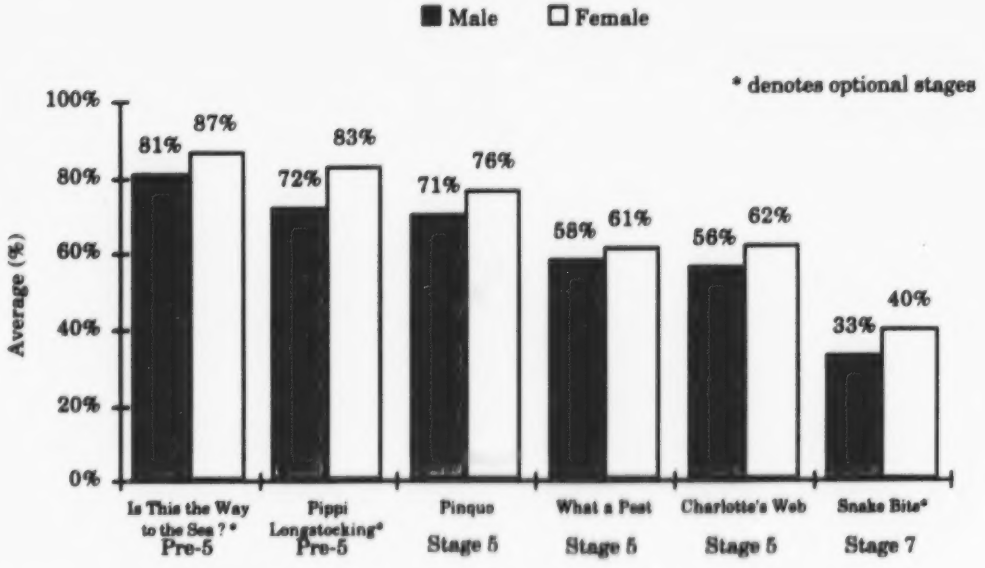
Table 16 Score Distributions of Subgroups for the Year 7 Mathematics Test

	0%–20%	21%–40%	41%–60%	61%–80%	81%–100%
System	**3%**	**12%**	**25%**	**34%**	**27%**
Aboriginal	12%	26%	33%	20%	8%
Non-Aboriginal	1%	10%	24%	36%	29%
Male	2%	13%	24%	33%	28%
Female	3%	10%	26%	36%	25%
ESL	9%	30%	24%	15%	22%
Non-ESL	2%	10%	25%	35%	27%

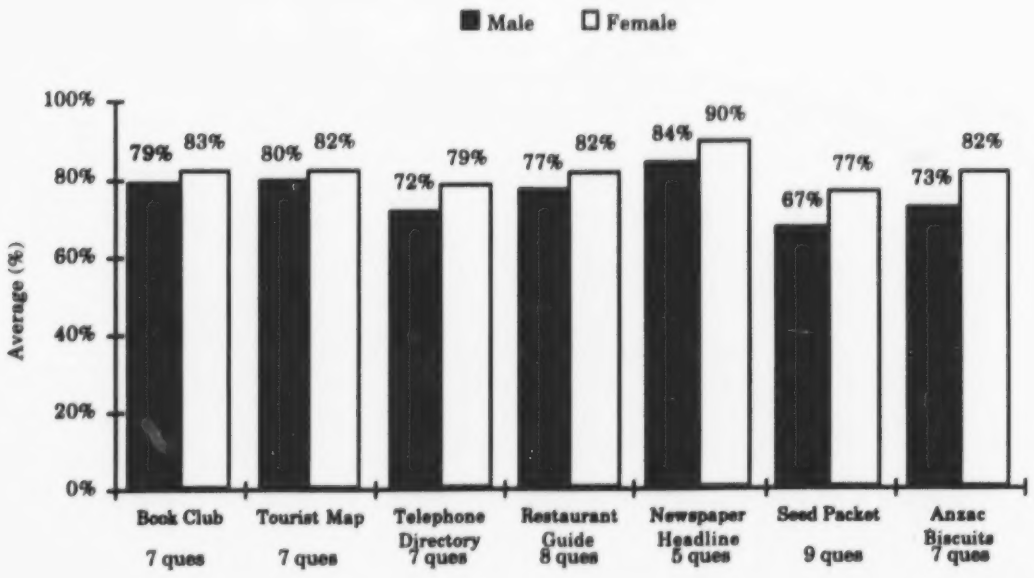
Appendix III

Average Subtest Scores by Gender

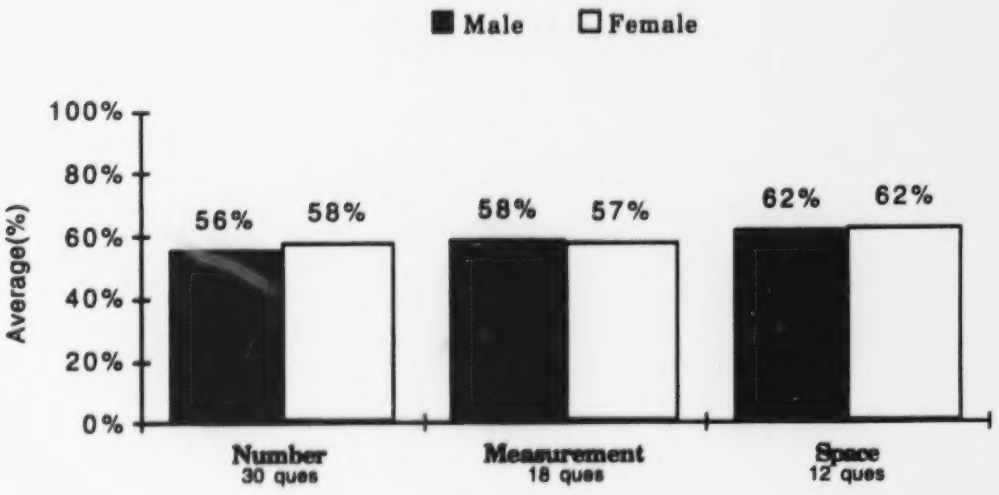
Graph 15 **Average Scores for the Year 5 Reading Comprehension Test by Gender**



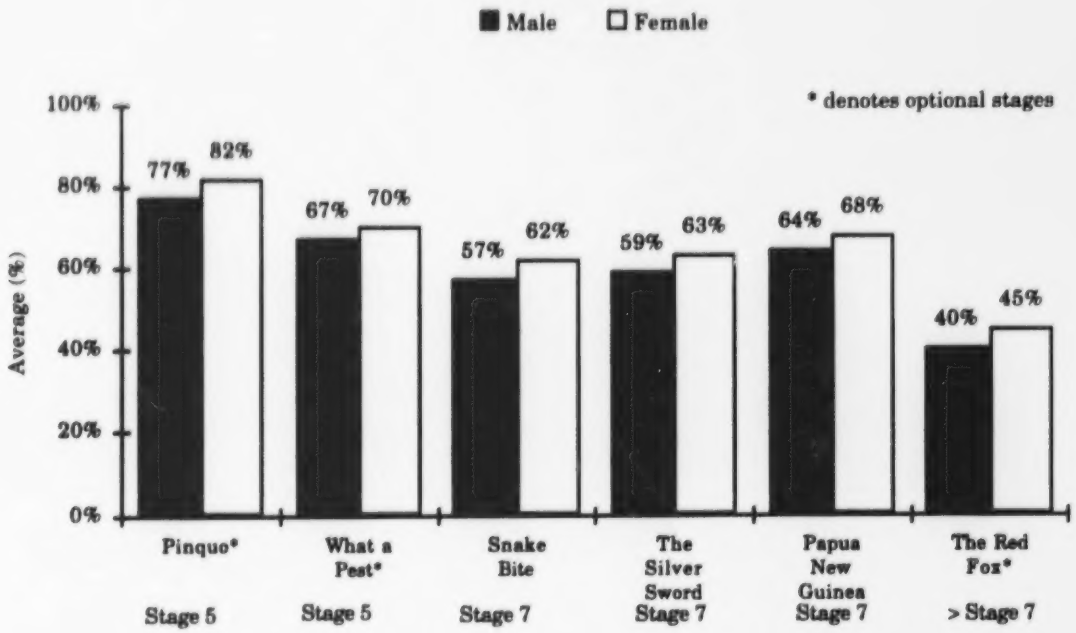
Graph 16 **Average Scores for the Year 5 RET Test by Gender**



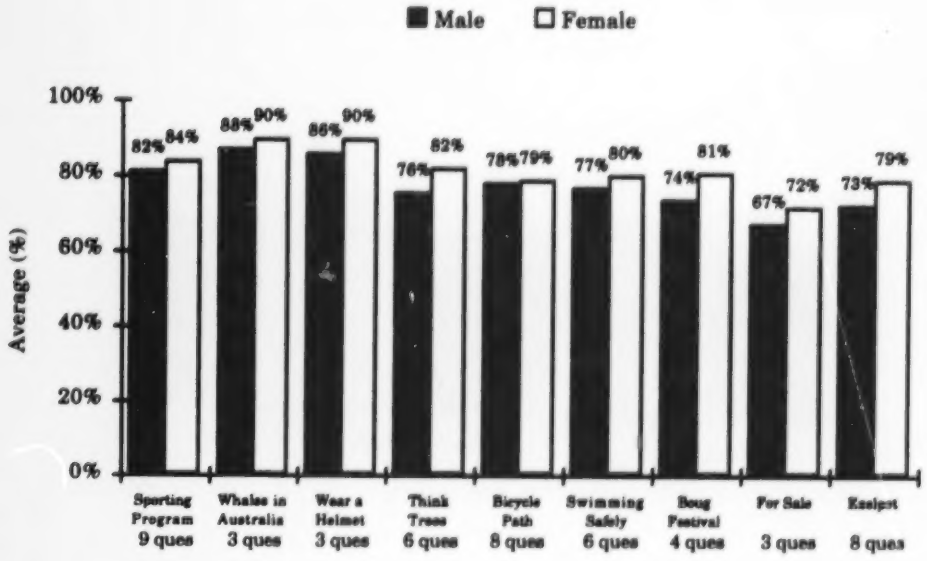
Graph 17 **Average Scores for the Year 5 Mathematics Test by Gender**



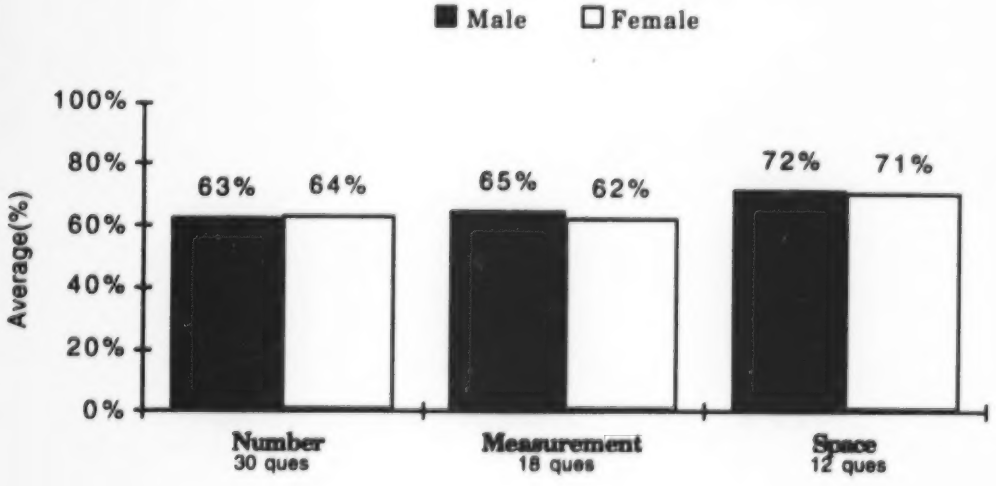
Graph 18 **Average Scores for the Year 7 Reading Comprehension Test by Gender**



Graph 19 **Average Scores for the Year 7 RET Test by Gender**



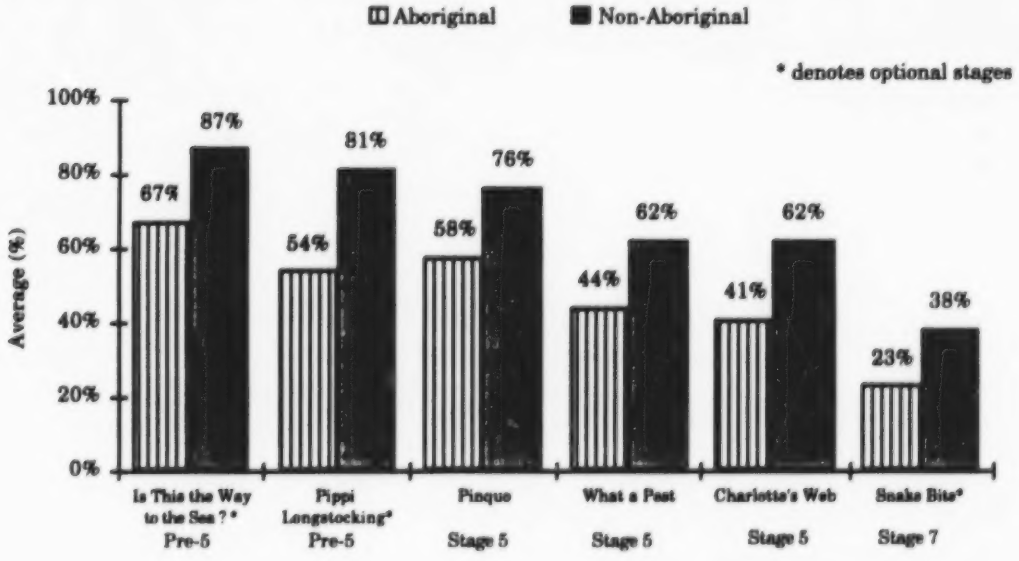
Graph 20 **Average Scores for the Year 7 Mathematics Test by Gender**



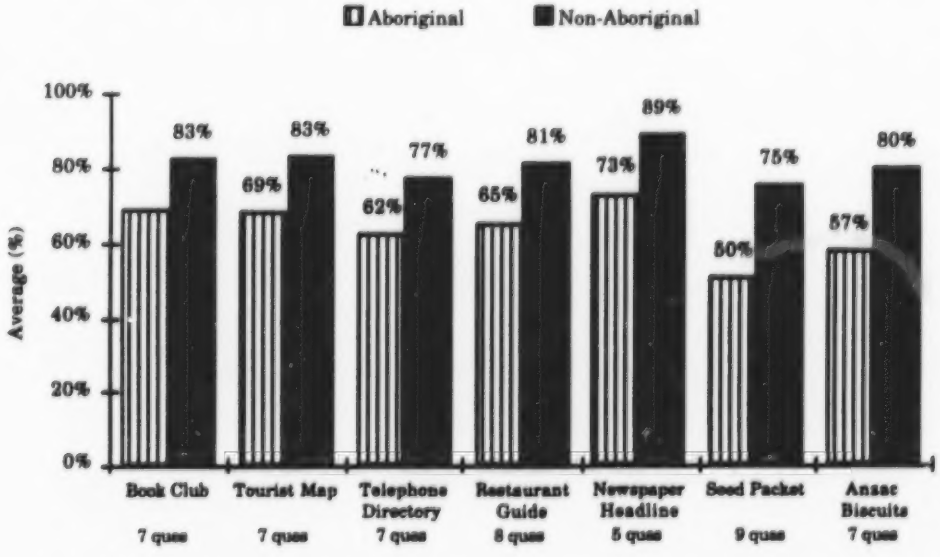
Appendix IV

Average Subtest Scores by Aboriginal and Non-Aboriginal Students

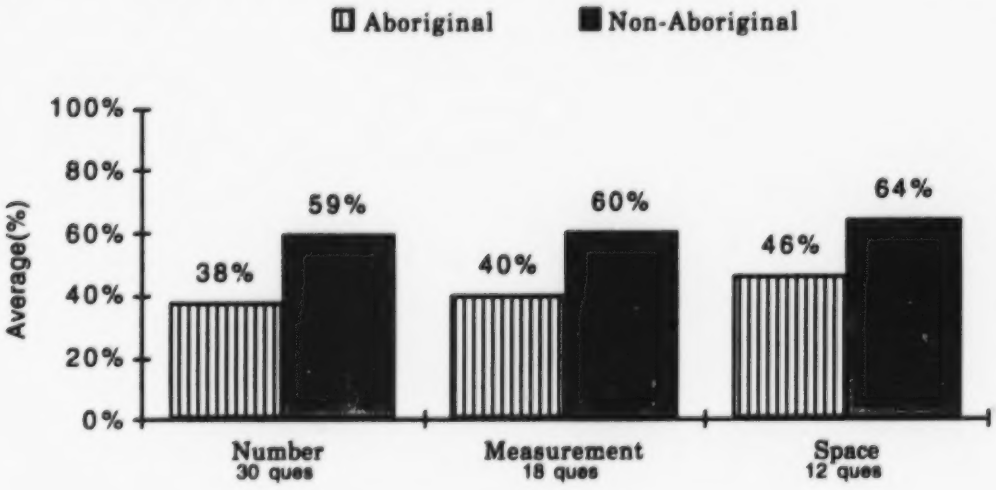
Graph 21 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 5 Reading Comprehension Test**



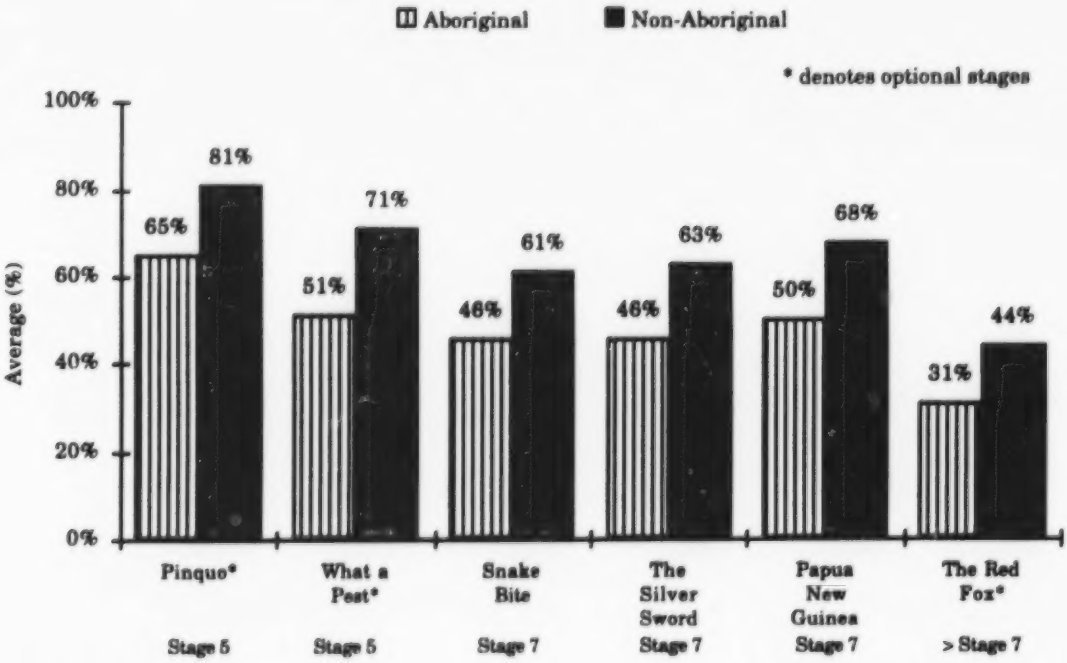
Graph 22 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 5 RET Test**



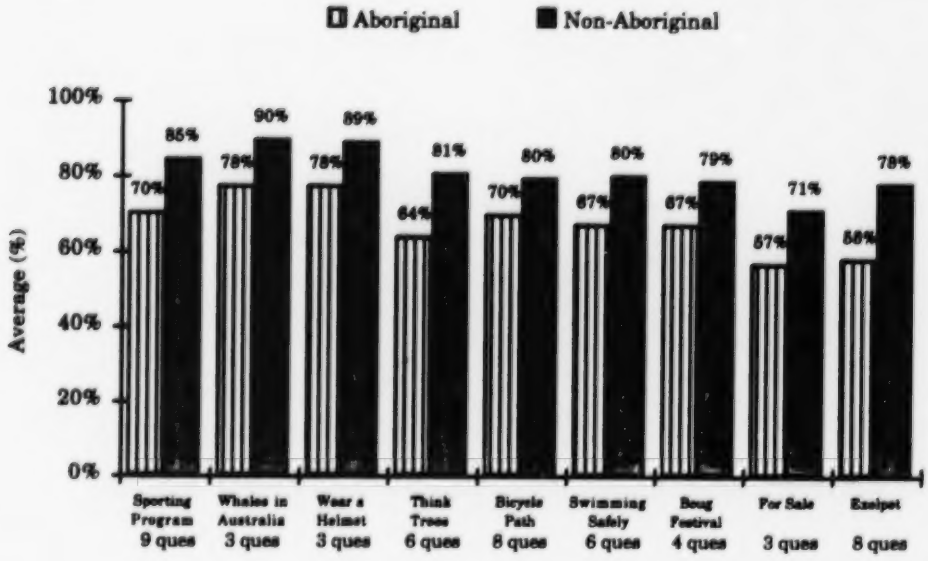
Graph 23 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 5 Mathematics Test**



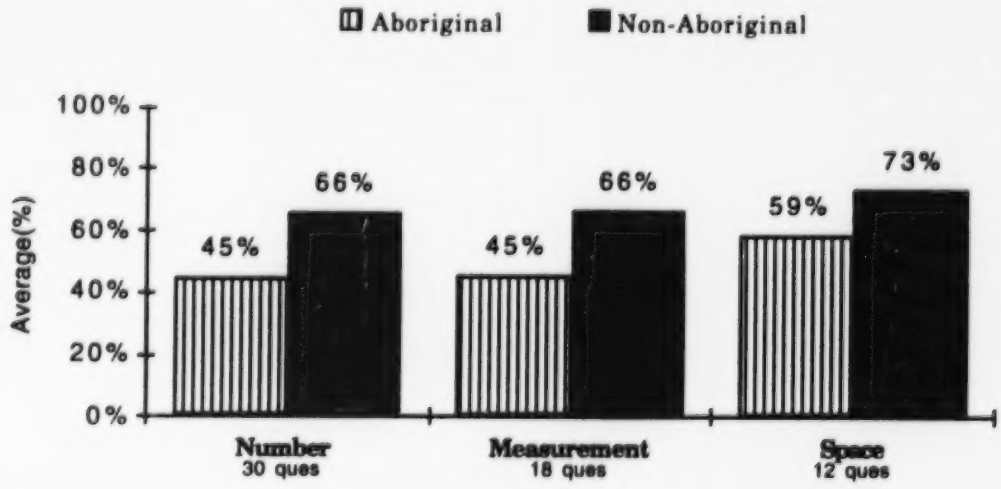
Graph 24 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 7 Reading Comprehension Test**



Graph 25 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 7 RET Test**



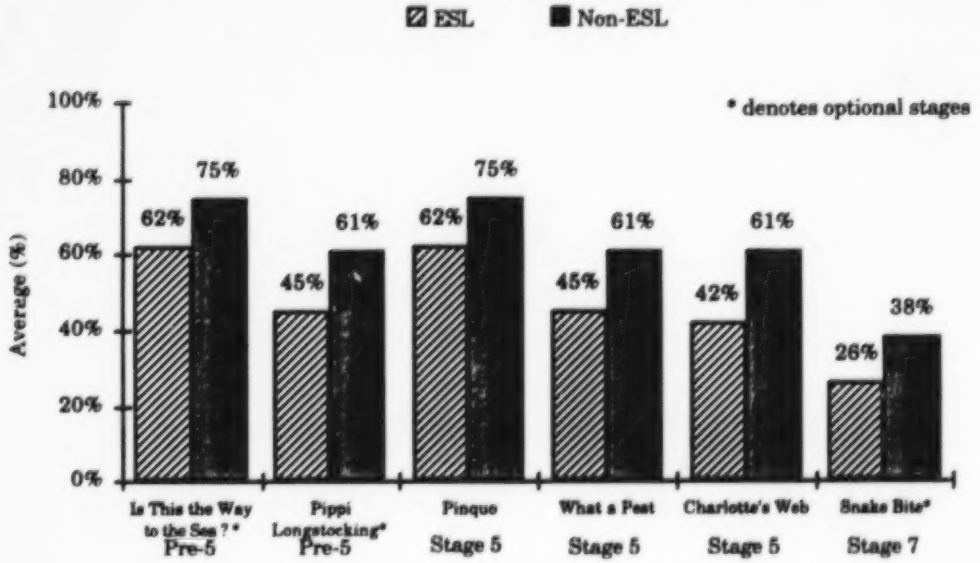
Graph 26 **Average Scores of Non-Aboriginal and Aboriginal Students for the Year 7 Mathematics Test**



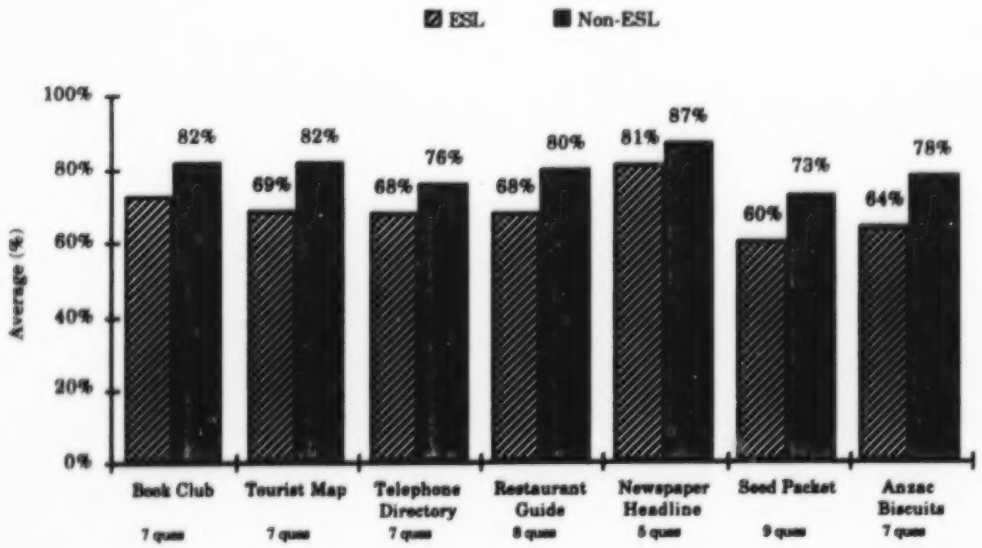
Appendix V

Average Subtest Scores by ESL and Non-ESL Students

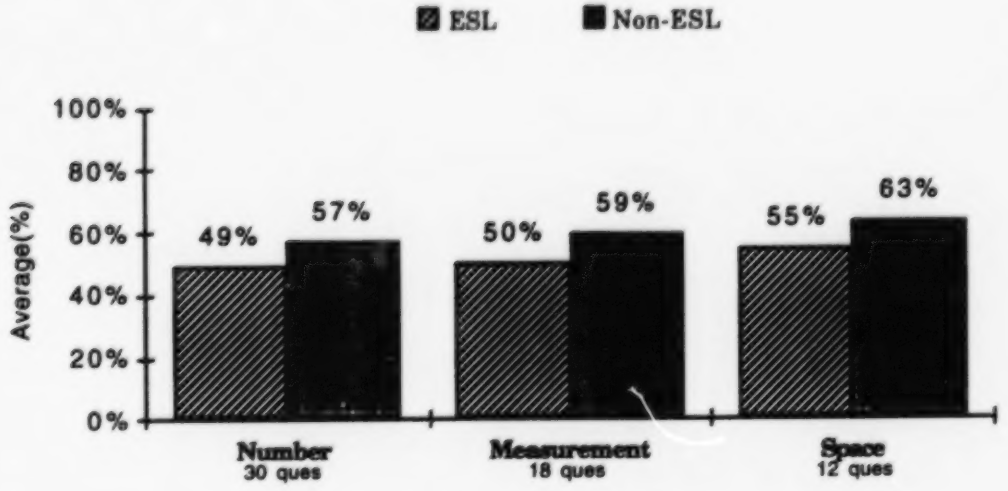
Graph 27 **Average Scores of Non-ESL and ESL Students for the Year 5 Reading Comprehension Test**



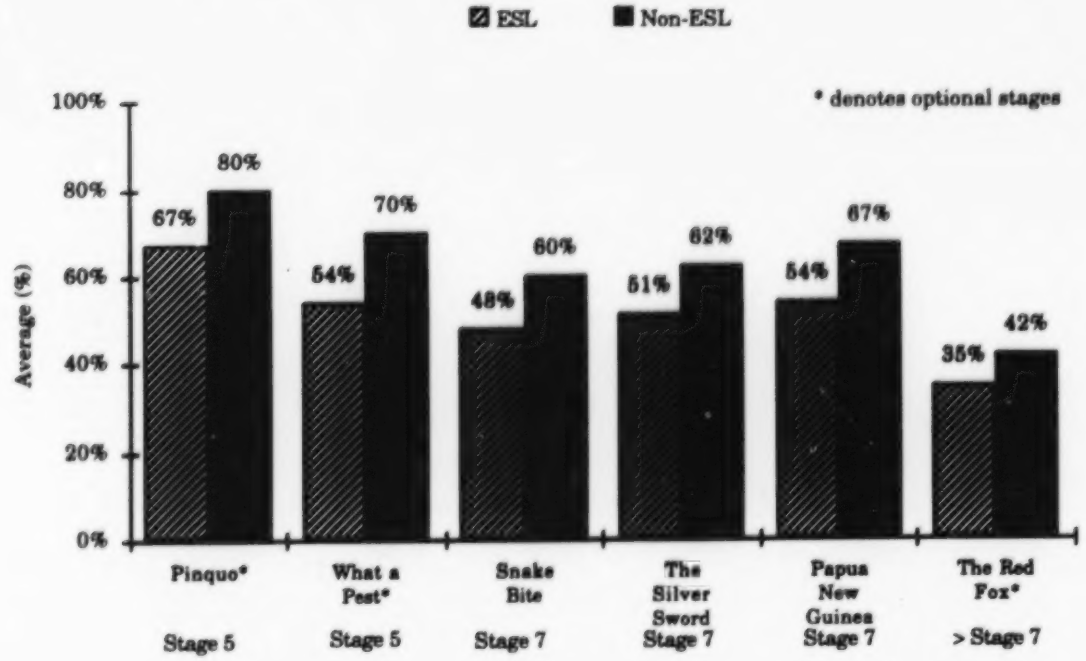
Graph 28 **Average Scores of Non-ESL and ESL Students for the Year 5 RET Test**



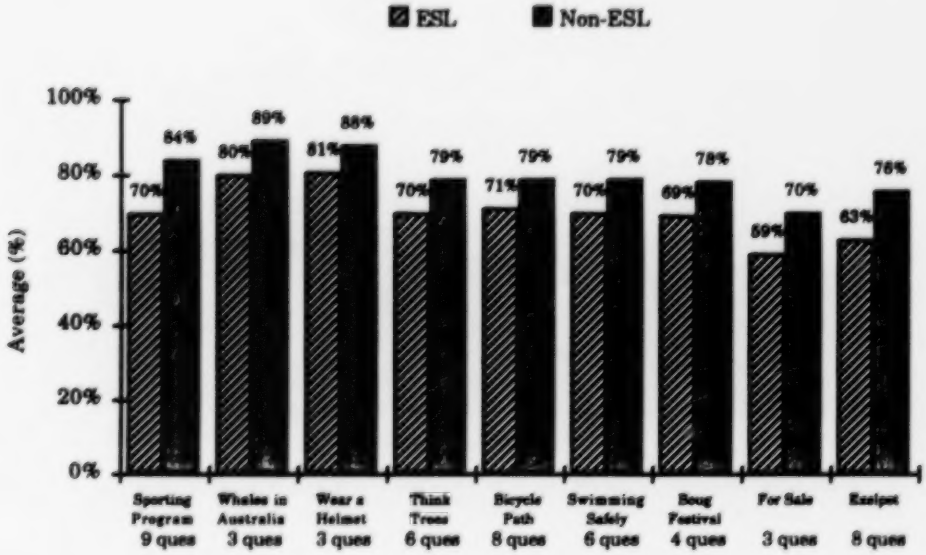
Graph 29 **Average Scores of Non-ESL and ESL Students for the Year 5 Mathematics Test**



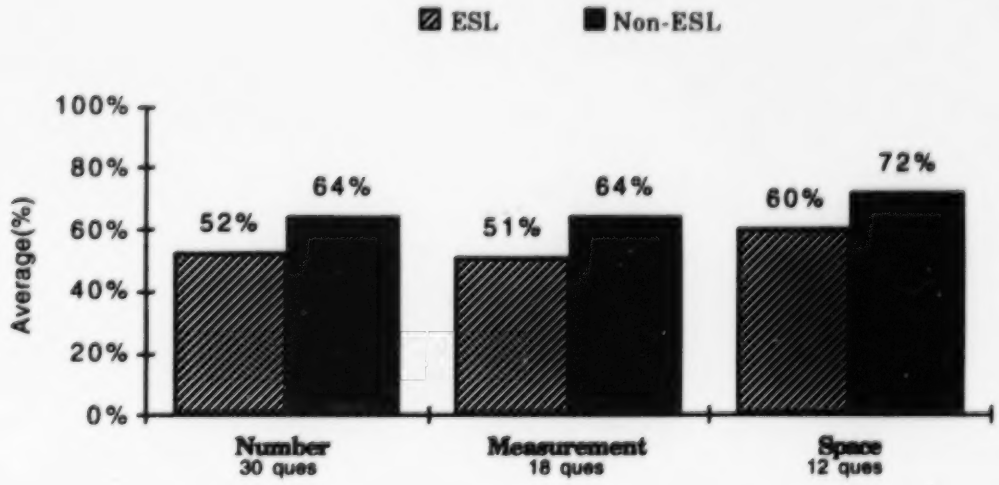
Graph 30 **Average Scores of Non-ESL and ESL Students for the Year 7 Reading Comprehension Test**



Graph 31 **Average Scores of Non-ESL and ESL Students for the Year 7 RET Test**



Graph 32 **Average Scores of Non-ESL and ESL Students for the Year 7 Mathematics Test**



Appendix VI

Glossary

ABORIGINAL	Students who, on the test cover-sheet, identified themselves as being Aboriginal
AGGREGATED	When all students' scores are totalled and reported as a system score
ALGORITHM	Where the procedure is supplied and the student must give an answer to a mathematical problem, e.g. 5 x 3.2
CONTINUUM	The range of possible scores from zero to the maximum score
DIAGNOSTIC	Test information that highlights areas of strength and weakness for the individual, school or system
DISTRIBUTION (of scores)	Where all students' scores are placed on a scale continuum
INDIVIDUAL RESULTS	An account of how each individual student performed on each test
ITEM	This term is interchangeable with 'question'
LEVEL OF DIFFICULTY	How difficult the question was as indicated by what percentage of students got it right
LINK QUESTIONS	Common questions placed in tests over succeeding years that allow direct year-to-year comparisons to be made of system performance
NON-ABORIGINAL	Students who, on their test cover sheets, did not identify themselves as Aboriginal
PERFORMANCE	How a student or group of students did on a test expressed in terms of average score
RELIABILITY	The measure of the amount of trust that can be placed in a test measuring the same thing, such as reading comprehension, accurately and consistently
SCHOOL RESULTS	The combined results of all students in the school who took a test

SIGNIFICANCE DIFFERENCE	When the difference between two results is proven, by a statistical test, e.g. a t-test, to be unlikely to be due to chance
STANDARD DEVIATION	The average amount in which all scores deviate from the average score
SUBTEST	A section of the whole test that is made up of questions from the same text or strand
SYSTEM	All of the students in the NT who have taken a particular test
t-TEST	A statistical test that determines if a difference is statistically significant or not, i.e. is unlikely to be the result of chance
TEXT	The written material on which a reading test is based
VALIDITY	The extent to which a test does test what it is designed to test such as mathematical ability at Year 5

Appendix VII

Sample Year 5 and 7 Reading Test Questions

Sample questions from the Year 5 reading comprehension test.

Pinquo was a penguin. His home was a rocky burrow near the entrance to Sickle Bay. Hundreds of his friends lived there too, in hollows along the coast or in holes dug into the sedge-covered sandhill near by. He weighed exactly one kilogram and when he stood up he was thirty-three centimetres high. That meant that he was the smallest kind of penguin in the world. Scientists called him the Little Blue, but ordinary people said he was a Fairy Penguin. That was a beautiful and proper name for someone like Pinquo.

Pinquo was a sort of poem. His eyes were like little circles of moonlight and his feathers were soft and strong. On his back they were the colour of blue steel but his chest was as clean and white as laundered linen. At daybreak each morning he went down to the sea to fish. He swam and skipped and dived faster than the blink of an eye. He darted and swung and looped this way and that like a bird swooping about in the high clear sky. But Pinquo was flying under the water.

Pinquo was a clown. At dusk each evening he waddled up the beach towards his burrow like a small plump gentleman. He stood preening himself very particularly for a while; then he moved his flippers up and down slowly and started to sing – a dreadful song that sounded like a donkey in pain. At sea he clowned with his friends too, flipping water about or porpoising along like a skipping rocket – under the surface, up into the air, and back under again, for the sheer joy and speed of it. Pinquo was a lovely, gentle, wonderful creature.

13. What is the popular name for the Little Blue Penguin?

Ans: _____

14. When did Pinquo go fishing?

A. Early morning
B. Late morning
C. Late afternoon
D. Late at night

15. What do Fairy Penguins eat?

Ans: _____

16. Pinquo lived in a

A. sea cave.
B. sandy hollow.
C. grassy nest.
D. rocky burrow.

17. Why was Fairy Penguin a proper name for Pinquo?

A. His feathers were soft and strong.
B. He was the smallest kind of penguin in the world.
C. His eyes were small, round and shiny.
D. He was a very fast swimmer.

18. The whiteness of Pinquo's chest was compared to

Ans: _____

19. Pinquo was compared to a bird when he

A. preened himself.
B. flapped his flippers.
C. swam under water.
D. played with his friends.

20. Pinquo was like an animal in pain when he

A. waddled.
B. sang.
C. preened.
D. dived.

21. The word **'porpoising'** suggests that Pinquo swam

A. round and round.
B. from side to side.
C. under the water.
D. in and out of the water.

22. Which word in the text **best** describes how Pinquo walked on land?

Ans: _____

23. At what time of day do Fairy Penguins return to their burrows?

A. At dusk
B. In the afternoon
C. At midday
D. At night

24. Which sentence sums up the author's feelings about Pinquo?

Ans: _____

Sample Questions From the Year 5 RET Test

30. On which page is the Sports Section?

_____

31. What article can be found on page 3?

A. Growing old and feeling young
B. Fishing at Shady Camp
C. Bank charges NT clients more
D. Rosetto's Sports Quiz

32. On which page would you find the TV guide?

A. 19
B. 20
C. 25
D. 41

33. When was this edition of the Sunday Territorian paper published?

A. Sunday 24 February 1993
B. Sunday 24 March 1992
C. Sunday 24 October 1993
D. Sunday 24 October 1992

34. On which page would you find information about cyclones?

A. 19
B. 20
C. 25
D. 41

PAPUA NEW GUINEA

Location

Papua New Guinea (PNG) is situated just north of Australia, just below the equator. It is made up of the eastern half of the island of New Guinea and a number of surrounding islands to the north and east. The islands to the south are called the Torres Strait Islands and are part of Queensland, Australia. Papua New Guinea borders on Indonesia (the province of Irian Jaya) in the west and is next to the Solomon Islands in the east. The map shows the location of Papua New Guinea in relation to its neighbours.

Landforms

Papua New Guinea is a rugged country and until recently some regions had never been visited by outsiders. A high range of mountains (over 4000 metres high) divides the country into north and south. This is called the Central Range. There is still no permanent road over these mountains, so people have to fly or walk from the north coast to the south. The valleys high in this mountain range are the most fertile and densely populated part of the country.

Many rivers flow from the mountains to the sea. The largest river flowing north is the Sepik; the largest river flowing south is the Fly. Both are navigable for long distances. The Sepik River in New Guinea for example, is 1126 kilometres long and boats can travel on it for most of the way. This makes it easier for Sepik people to communicate and trade with each other.

Plants and animals

Papua New Guinea was joined to Australia until about 6000 years ago, so many kinds of plants and animals are the same. There are 250 species of mammals, including sixty marsupials. Papua New Guinea even has tree kangaroos.

Most of Papua New Guinea is forested which makes it ideal for birdlife. The country is famous for its 700 species of birds, including forty-three kinds of bird of paradise, one of the most beautiful and exotic birds in the world. This bird is used as a national emblem on Papua New Guinea's national airline.

Read the report about **PAPUA NEW GUINEA** and answer these questions.

29. Papua New Guinea is situated

A. above the equator.
B. South of Australia.
C. West of Irian Jaya.
D. below the equator.

30. What landform divides the north from the south of Papua New Guinea?

_____

31. Label the rivers and mountain range on the map below.

32. Which land is the most fertile?

A. North of the Central Range
B. Valleys in the Central Range
C. Peaks in the Central Range
D. West of the Central Range

33. Sepik people can communicate and trade with each other because the Sepik river

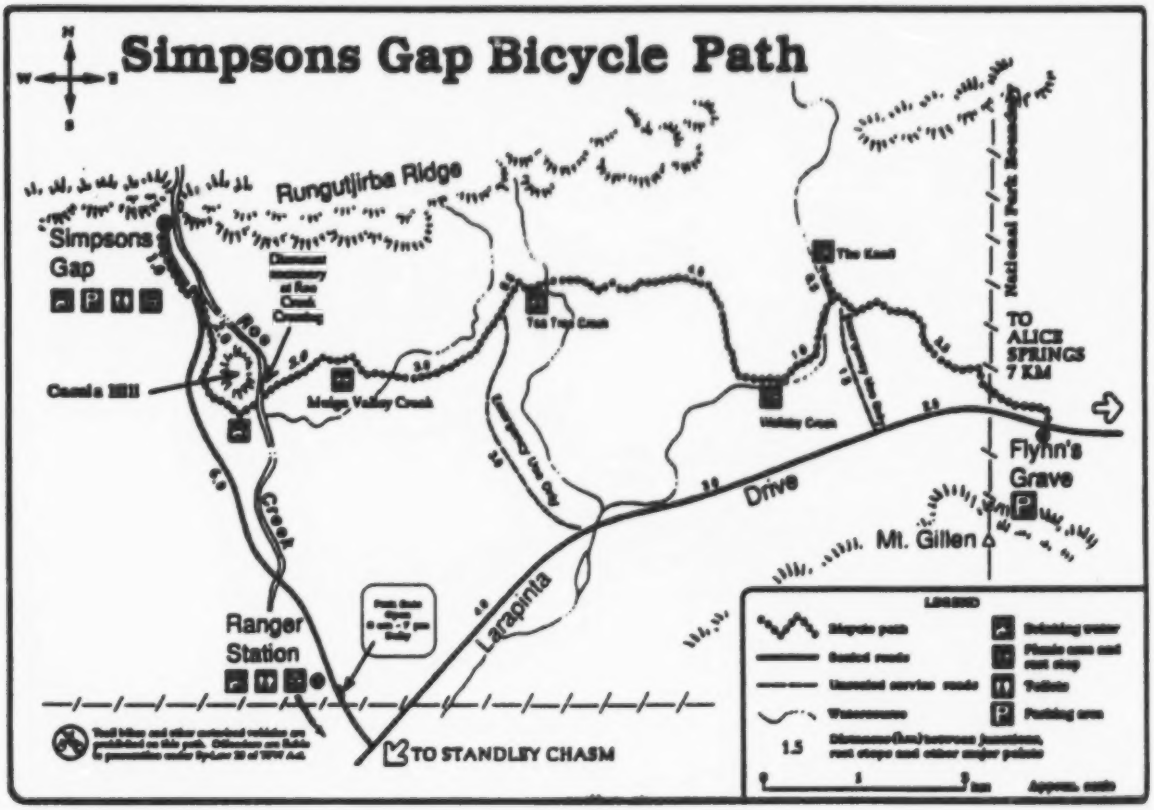
A. flows to the sea.
B. is navigable.
C. is 1126 km long.
D. flows north.

35. The landmasses of Australia and New Guinea were once joined. As a result of this

A. their languages and culture developed differently.
B. they have many species of plants and animals in common.
C. PNG has 700 species of birds.
D. PNG and Australia are both 600 years old.

42. The authors wrote this text because

A. they thought it was a good tourist destination.
B. they wanted to tell us about Indonesia.
C. their favourite place is Papua New Guinea.
D. they wanted to tell us about Papua New Guinea.



22. Name the creek crossing at which cyclists must get off their bikes.

A. Roe
B. Wallaby
C. Tea Tree
D. Mulga Valley

23. Which is the nearest picnic area to the Park Gate?

24. Drinking water is available at both

A. the Knoll and Cassia Hill.
B. Simpsons Gap and the Ranger Station.
C. Tea Tree Creek and Simpsons Gap.
D. the Ranger Station and Wallaby Creek.

25. Where is Cassia Hill?

A. North of Simpsons Gap
B. South of the Ranger Station
C. West of Mulga Valley
D. East of Rungutjirba Ridge

26. List all the facilities provided at the Ranger Station.

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